*Xerox Document Centre
ColorSeries 50 LP/ST
Digital Copier/Printer
Printer Installation Guide*

Radio Frequency Emissions Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna

- Increase the separation between the equipment and receiver

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment not specifically approved by the Xerox Corporation may void the authority granted by the FCC to operate this equipment.

Shielded cables must be used with this equipment to maintain compliance with FCC regulations.

In Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as defined in the Radio interference regulations of Industry Canada.

FCC

The following applies to the product when equipped with the Token Ring or Banyan VINES connectivity options.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

Changes or modifications to this equipment not specifically approved by the Xerox Corporation may void the user's authority to operate this equipment.

Shielded cables must be used with this equipment to maintain compliance with FCC regulations.

In Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as defined in the Radio interference regulations of Industry Canada.

Safety Extra Low Voltage Approval

The Xerox Document Centre ColorSeries 50 copier/printer is in compliance with various governmental agencies and national safety regulations. All system ports meet the Safety Extra Low Voltage (SELV) circuits for connection to customer-owned devices and networks. Additions of customer-owned or third-party accessories that are attached to the copier/printer must meet or exceed the requirements listed above. All modules that require external connection must be installed per the Xerox Document Centre ColorSeries 50 installation procedure.

Certifications . . . in Europe

The CE marking that is applied to this product symbolizes Xerox Europe's Declaration of Conformity with the following applicable Directives of the European Union as of the dates indicated:

January 1, 1995 - Council Directive 73/23/EEC amended by Council Directive 93/68/ EEC, approximation of the laws of the member states related to low voltage equipment.

January 1, 1996 - Council Directive 89/336/EEC, approximation of the laws of the member states related to electromagnetic compatibility.

Changes or modifications to this equipment not specifically approved by Xerox Europe may void the user's authority to operate the equipment.

Shielded cables must be used with this equipment to maintain compliance with the EMC Directive 89/336/EEC.

This equipment is not primarily intended for use in a domestic environment.

A full declaration, defining the relevant Directives and referenced standards, can be obtained from your Xerox Europe representative.

WARNING: In order to allow this equipment to operate in proximity to Industrial, Scientific and Medical (ISM) equipment, the external radiation from ISM equipment may have to be limited or special mitigation measures taken.

The following applies to the product when equipped with Token Ring or Banyan VINES connectivity options.

WARNING: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Changes or modifications to this equipment not specifically approved by Xerox Europe may void the user's authority to operate the equipment.

Shielded cables must be used with this equipment to maintain compliance with the EMC Directive 89/336/EEC.

WARNING: In order to allow this equipment to operate in proximity to Industrial, Scientific and Medical (ISM) equipment, the external radiation from ISM equipment may have to be limited or special mitigation measures taken.

It's Illegal . . . in the USA

Congress, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such copies.

1. Obligations or Securities of the United States Government, such as:

Certificates of Indebtedness	National Bank Currency
Coupons from Bonds	Federal Reserve Bank Notes
Silver Certificates	Gold Certificates
United States Bonds	Treasury Notes
Federal Reserve Notes	Fractional Notes
Certificates of Deposit	Paper Money

Bonds and Obligations of certain agencies of the government, such as FHA, etc.

Bonds. (U.S. Savings Bonds may be photographed only for publicity purposes in connection with the campaign for the sale of such bonds.)

Internal Revenue Stamps. (If necessary to copy a legal document on which there is a canceled revenue stamp, this may be done, provided the reproduction of the document is performed for legal purposes.)

Postage Stamps, canceled or uncanceled. (For philatelic purposes, Postage Stamps may be photographed, provided the reproduction is in black and white and is less than 75% or more than 150% of the linear dimensions of the original.)

Postal Money Orders.

Bills, Checks, or Drafts of money drawn by or upon authorized officers of the United States.

Stamps and other representatives of value, of whatever denomination, which have been or may be issued under any Act of Congress.

2. Adjusted Compensation Certificates for Veterans of the World Wars.

3. Obligations or Securities of any Foreign Government, Bank, or Corporation.

4. Copyrighted material, unless permission of the copyright owner has been obtained or the copying falls within the "fair use" or library reproduction rights provisions of the copyright law. Further information of these provisions may be obtained from the Copyright Office, Library of Congress, Washington, D.C. 20559. Ask for Circular R21.

5. Certificates of Citizenship or Naturalization. (Foreign Naturalization Certificates may be photographed.)

6. Passports. (Foreign Passports may be photographed.)

7. Immigration Papers.

8. Draft Registration Cards.

9. Selective Service Induction Papers that bear any of the following Registrant's information:

   - Earnings or Income   - Dependency Status

   - Court Record   - Previous military service

   - Physical or mental condition

   - U.S. Army and Navy discharge certificates *may* be photographed.

10. Badges, Identification Cards, Passes, or Insignia carried by Military or Naval personnel, or by members of the various Federal Departments, such as FBI, Treasury, etc. (unless photograph is ordered by the head of such department or bureau).

Copying the following is also prohibited in certain states:

Automobile Licenses - Drivers' Licenses - Automobile Certificates of Title.

The above list is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your attorney.

It's Illegal . . . in Canada

Parliament, by statute, has forbidden the copying of the following subjects under certain circumstances. Penalties of fines or imprisonment may be imposed on those guilty of making such copies.

1. Current bank notes or current paper money.

2. Obligations or securities of a government or bank.

3. Exchequer bill paper or revenue paper.

4. The public seal of Canada or of a province, or the seal of a public body or authority in Canada, or of a court of law.

5. Proclamations, orders, regulations or appointments, or notices thereof (with intent to falsely cause same to purport to have been printed by the Queen's Printer for Canada, or the equivalent printer for a province).

6. Marks, brands, seals, wrappers or designs used by or on behalf of the Government of Canada or of a province, the government of a state other than Canada or a department, board, Commission or agency established by the Government of Canada or of a province or of a government of a state other than Canada.

7. Impressed or adhesive stamps used for the purpose of revenue by the Government of Canada or of a province or by the government of a state other than Canada.

8. Documents, registers or records kept by public officials charged with the duty of making or issuing certified copies thereof, where the copy falsely purports to be a certified copy thereof.

9. Copyrighted material or trademarks of any manner or kind without the consent of the copyright or trademark owner.

10. The above list is provided for your convenience and assistance, but it is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your solicitor.

Environmental Notices . . . in the USA

As an ENERGY STAR® partner, Xerox Corporation has determined that this copier/printer model meets the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a US registered trademark.

The ENERGY STAR program is a team effort between the Environmental Protection Agency and the office equipment industry to promote energy-efficient personal computers, monitors, printers, fax machines and copiers. Reducing the energy consumption of this equipment will help combat smog, acid rain and long-term changes to the climate by decreasing the emissions that result from generating electricity.

Environmental Notices . . . in Canada

As a participant in the Environmental Choice program, Xerox Corporation has determined that this copier/printer model meets the Environmental Choice guidelines for energy efficiency.

Environment Canada established the Environmental Choice program in 1988 to help consumers identify environmentally responsible products and services. Copier, printer and fax products must meet energy efficiency and emissions criteria, and exhibit compatibility with recycled supplies. Currently, Environmental Choice has more than 1600 approved products and 140 licensees. Xerox has been a leader in offering EcoLogo approved products. In 1996, Xerox became the first company licensed to use the Environmental Choice EcoLogo for its copiers printers, and fax machines.

Table of Contents

Introduction

This guide contains information specifically for the network printer versions of the Xerox Document Centre ColorSeries 50 LP/ST. This *Introduction* chapter contains information about this guide and obtaining support for your network copier/printer, including:

■   The contents of this guide and how to use it

■   Where to find product information

■   How to get technical support.

About this Guide

This guide is written for an experienced Network Administrator. It contains procedures for installing and setting up the Xerox Document Centre ColorSeries 50 LP/ST in a network environment.

Requirements for Using this Guide

This guide assumes you have a network printer version of the Xerox Document Centre ColorSeries 50 LP/ST with the network controller installed. In general, the requirements for successfully connecting and setting up your copier/printer include:

■   A working knowledge of your network environment

■   Appropriate cabling to connect your copier/printer to your network

■   A network workstation with the appropriate operating system and software installed. You may use either a Microsoft Windows (95, 98, or NT 4.0) workstation or a workstation (such as Macintosh, UNIX, etc.) with Microsoft Internet Explorer (version 4.0 or higher) or Netscape Navigator (version 4.0 or higher) installed.

■   The Xerox Document Centre ColorSeries 50 Network Software CD-ROM.

Contents of this Guide

This guide contains printer feature information and network installation procedures, including:

■   An overview of network printer features and the network software

■   Printer installation procedures for all supported network environments

■   Installation procedures for network printer drivers

■   Troubleshooting information for network installations.

How to Use this Guide

This guide is organized to minimize the number of procedures and the reading required to install the Xerox Document Centre ColorSeries 50 LP/ST on a network.

➤ **To use this guide:**

1 Review the Table of Contents and familiarize yourself with the content and organization of this guide.

2 Review *Chapter 1 Network Printer Features* and *Chapter 2 Network Printer Software*. These chapters contain important introductory information that will assist you in understanding printer and network software features.

3 Locate the appropriate network installation chapter for your network environment. Refer to that chapter and follow the procedures to install the printer on the network, install a printer driver, and print a test page.

4 If your test print job does not print or if you encounter any problems during the network installation, refer to *Chapter 8 Troubleshooting*.

5 Check the test print for print quality. If print quality problems exist, refer to the *Problem Solving* chapter in the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide* to correct the problem.

Conventions Used in This Guide

Terminology and Font Conventions

- References to other sections or documents are *italicized*.

- Names of screen buttons and menu items are **bold**.

- The term *Select* is used when choosing or highlighting an entry, or when choosing an option from a list. Selecting does not usually start an action. For example: Select **Print** from the File menu.

- The term *Click* is used to indicate an action carried out by depressing the left mouse button once. You may also double-click and right-click. For example: Click **Exit**.

- When procedures include a series of menu selections, the series may be represented by a string of selections separated by the > symbol. For example: At the desktop select **File > Print > Options**.

  For a series of directory tree selections, the + symbol is used. For example: In the directory tree, select **Connectivity+Interface+Ethernet**.

Procedures

The start of a procedure is marked by bold text and a right arrow icon in the left margin. For example:

> **To install the CentreWare software:**

Notes

Notes provide information that will help you perform a certain task or provide additional information related to a task. Notes may also provide reference information. For example:

Note: Both the Printer Admin Services program and Windows Color Calibration Utilities are installed using this procedure.

Cautions

A Caution notifies you that performing a procedure incorrectly may result in the loss of important settings or data. For example:

CAUTION: Do not proceed without resetting the copier/printer. Proceeding without resetting the copier/printer may result in the loss of data settings.

Where to Find Information

There are several paper-based and online information resources for the Xerox Document Centre ColorSeries 50 LP/ST.

Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer System Administration Guide

The *System Administration Guide* is used by the System Administrator to perform tasks such as checking meters and consumables, using the Tools mode, performing system maintenance and ordering supplies.

Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer User Guide

The *User Guide* provides information and procedures that focus primarily on the copier user. It contains information such as basic copying, image quality, output formats, job assembly and problem solving information.

Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer Installation Guide (this guide)

This guide is used by the Network Administrator to install the copier/printer on a network. It includes network connection and setup procedures, as well as procedures for installing and using the network software programs and printer drivers.

Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide

The *Printer User Guide* is intended for the network printer user. It contains step-by-step procedures for installing and using the printer drivers and accessing and using CentreWare Internet Services to print and scan documents.

Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer User Quick Start

The *Printer User Quick Start* provides an overview of the steps associated with using the printer drivers to print documents and using CentreWare Internet Services software to print and scan documents with the copier/printer.

Network Software Online Help

Online help information is available for CentreWare Printer Admin Services, CentreWare Internet Services, printer drivers, and Color Calibration Utilities. To invoke Help, simply click **Help** on the software screen or dialog that you are using.

Other Sources of Information

Other sources of information include the *Quick Reference Install Cards*, *Color Materials Usage Guide*, *Recommended Papers List*, and *Customer Site Planning Guide*. These documents will assist you in determining a suitable location for your copier/printer, selecting the appropriate print and copy media, and quickly locating user information for digital copying.

Where to get Support

Internet Support

For the latest product information and news, visit Xerox on the Internet at *www.xerox.com*.

Telephone Technical Support

Contact the Xerox Welcome Center for telephone technical support. Locate the following information and have it available when contacting the Welcome Center:

Product Model: Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer

Product Serial Number:

Contact the Welcome Center for your country using the telephone numbers listed below. If the telephone number for your country is not listed, it will be provided to you when your copier/printer is delivered. For future reference, please record the number in the space provided below.

United States: 1-800-821-2797

Canada: 1-800-939-3769

Your Country:

Note: Information on ordering supplies is provided in the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer System Administration Guide*.

Chapter 2

Network Software

This chapter contains information on the printer network software, including:

- CentreWare Network Installation Software
- Network Printer Drivers
- Color Calibration Utilities.

CentreWare Network Installation Software

Two software programs are provided to assist you in installing the Xerox Document Centre ColorSeries 50 on the network:

- CentreWare Printer Admin Services
- CentreWare Internet Services.

The network installation may be performed using either of these programs.

Which Installation Software should you use?

You should use the program that is best suited to your network workstation environment and your own preference.

Use *CentreWare Printer Admin Services* if you are using a Microsoft Windows network workstation. Use *CentreWare Internet Services* if you prefer an Internet-based solution. The use of CentreWare Internet Services requires a TCP/IP network and a network workstation with either Microsoft Internet Explorer (version 4.0 or higher) or Netscape Navigator (version 4.0 or higher) installed.

CentreWare Printer Admin Services

CentreWare Printer Admin Services is a 32-bit, Microsoft Windows-based software program. It may be used by the Network Administrator to remotely perform tasks such as:

- modifying printer network connectivity settings
- viewing the printer configuration
- printing reports.

This section contains the installation procedures and the general procedures for using the Printer Admin Services program. Detailed, step-by-step instructions for using Printer Admin Services to install and set up a printer are provided in the appropriate network installation chapter of this guide.

Installation Requirements

Printer Admin Services is installed from the Xerox Document Centre ColorSeries 50 Network Software CD-ROM. The installation program allows you to install both the Printer Admin Services program and the Microsoft Windows Color Calibration Utilities at the same time.

The minimum recommended workstation configuration for installing and running the program is:

- 80486 processor
- 2 MB of available disk space
- 16 MB of RAM
- Microsoft Windows 95, 98, or NT 4.0
- A network connection
- VGA video display.

Note: The Windows Color Calibration Utilities have the same minimum recommended workstation configuration requirements.

Installing Printer Admin Services

Use the Windows Install/Remove Programs feature to install Printer Admin Services.

Note: Both the Printer Admin Services program and Microsoft Windows Color Calibration Utilities are installed using this procedure.

➤ **To install Printer Admin Services:**

1 Insert the Xerox Document Centre ColorSeries 50 Network Software CD-ROM in the workstation CD-ROM drive.

2 At the desktop, select **Start > Settings > Control Panel**.

3 Double-click **Add/Remove Programs**.

4 Click **Install** to start the Install Program Wizard.

5 Click **Next**. Click **Browse** to open the Browse dialog. Browse to the location of the Xerox Document Centre ColorSeries 50 Network Software CD-ROM. On the CD-ROM, double-click **Client** > **Setup**.

6 Double-click **Setup** and click **Open**. The installation path is displayed in the Command Line field.

7 Click **Finish**. The Printer Admin Services installation program will start.

8 On the Welcome dialog, click **Next**.

9 Click **Yes** to accept the license agreement.

10 Enter your name and company information and click **Next**. Click **Next** to accept the default destination folder.

11 Select the desired installation component(s) (Printer Admin Services and Color Calibration Utility) and click **Next**.

12 Click **Next** to accept the default Program folder. The selected components will be installed.

13 Click **Finish**.

The installation is complete.

Using Printer Admin Services

This section provides an overview of the Printer Admin Services features and the tasks that may be performed using the software. Step-by-step procedures for using the software are provided in each of the network installation chapters.

No passwords are required to make changes to the printer connectivity settings with Printer Admin Services.

Starting Printer Admin Services

To start Printer Admin Services at the desktop, select **Start** > **Programs** > **Xerox CentreWare Color** > **Printer Admin Services**. The main window is displayed.
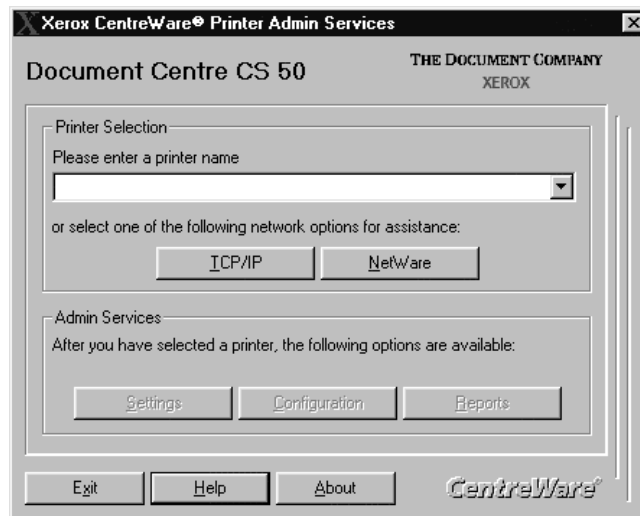
Selecting a Printer

The first step when using Printer Admin Services is to select a printer. Depending upon your network type, click either **TCP/IP** or **NetWare** to display a list of printers on the network.
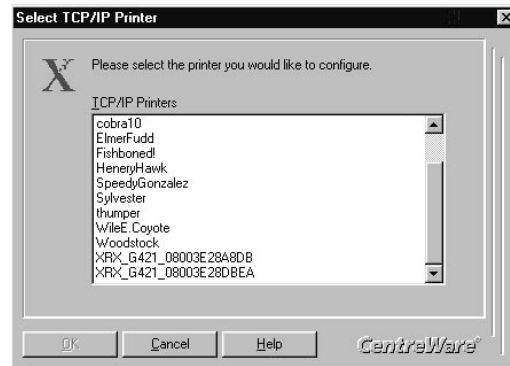
If the printer has not yet been configured, the default printer name will appear in the list.

■ The default TCP/IP printer name is XRX [IP Address] XRX. For example: *XRX13_128_145_138XRX*.

■ The default NetWare printer name is XRX_[MAC Address]. For example: *XRX_08003E28A8AD*.

Select the printer you are installing or reconfiguring from the list and click **OK**.

The main screen is displayed. The printer name appears in the Printer Name field and the **Settings**, **Configuration**, and **Reports** buttons are now active.
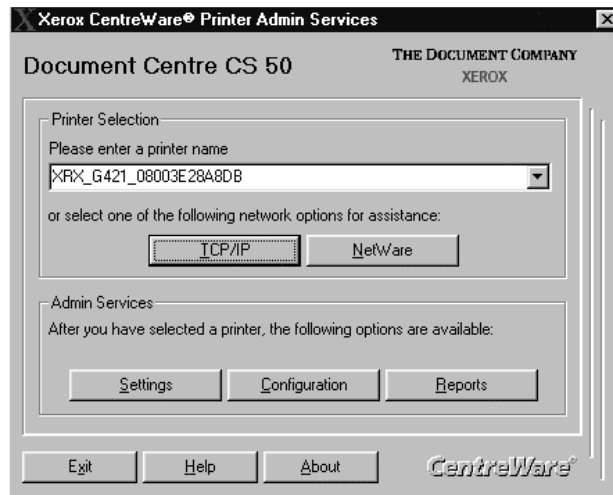
The program is ready to configure the printer connectivity settings, view the printer configuration information, and print reports.

Configuring Printer Connectivity Settings

Click **Settings** on the main window to display the printer connectivity settings tabs.
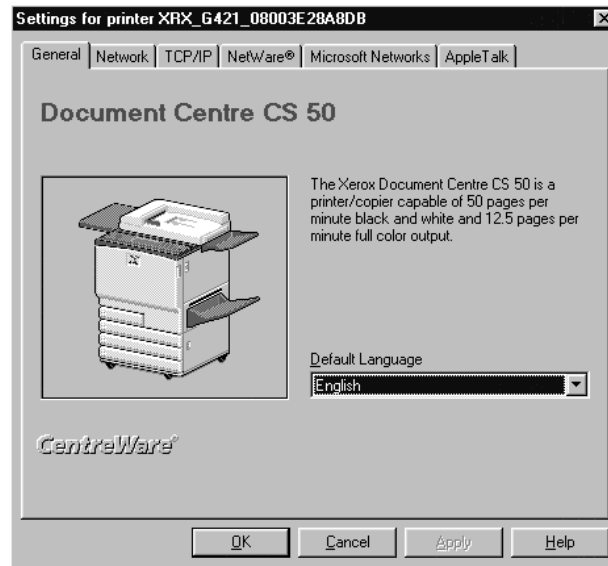
The **Network** tab is used to modify printer network settings such as Network Type, Frame Type, and Connection Type. The **TCP/IP**, **NetWare**, **Microsoft Networks**, and **AppleTalk** tabs are used to modify printer settings that are specific to those network environments.

Detailed, step-by-step instructions for using Printer Admin Services to install and set up a printer are provided in the appropriate network installation chapters of this guide.

To remain in the Settings dialog after making changes to the connectivity settings, click **Apply**. To return to the main window after making changes to the connectivity settings, click **OK**.

Note: Whenever changes are made to the printer connectivity settings, the printer must be powered off and back on in order for the pending changes to take effect.

Viewing the Printer Configuration

Click **Configuration** in the main window to display the Printer Configuration window.
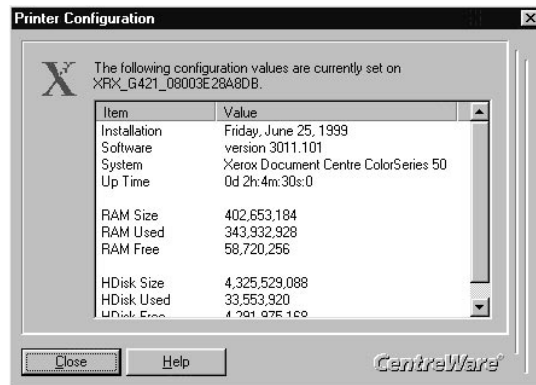
The displayed data shows the current values for the selected printer. Use the scroll bar to view the entire list. Configuration values include:

- Installation date/time
- Software and system versions
- Up time
- Capacity data for RAM and Hard Disk.

Click **Close** to return to the main window.

Printing Reports

Click **Reports** in the main window to display the Printer Reports window.
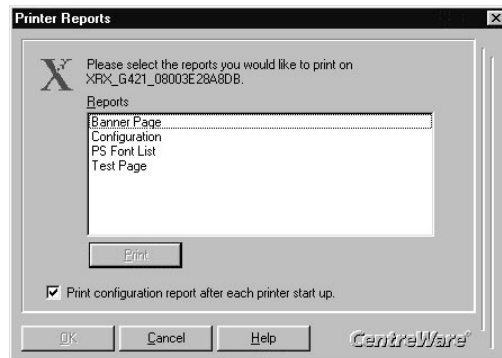
To print a report simply select the desired report from the list and click **Print**. Retrieve the printed report at the copier/printer.

Use the checkbox to select whether or not to print a Configuration Report each time the copier/printer is powered on. Changing the checkbox selection enables the **OK** button. If you wish to accept a checkbox change, click **OK** to accept the change and return to the main window. Otherwise, click **Cancel** to return to the main window.

Uninstalling Printer Admin Services

Use the following procedure to remove the CentreWare programs from the workstation.

Note: Both the Printer Admin Services program and Windows Color Calibration Utilities are uninstalled using this procedure.

➤ **To Uninstall Printer Admin Services:**

1   At the desktop, select **Start > Settings > Control Panel**.

2   Double-click **Add/Remove Programs**.

3   In the program list window, select *Xerox CentreWare x.x for DocuColor*.

4   Click **Add/Remove**. Click **Yes**. The program(s) are uninstalled.

5   When the uninstall process is complete, click **OK**. Click **OK** to close the Add/Remove Programs dialog.

The uninstall procedure is complete.

CentreWare Internet Services

CentreWare Internet Services is the embedded HTTP server software that is installed and running on the printer network controller. Like Printer Admin Services, Internet Services enables you to access and modify printer connectivity settings and print reports.

Internet Services also enables you to manage printer jobs, view and change printer properties, submit print-ready jobs to the printer, and scan hard-copy documents to electronic files (ST model only).

This section contains the procedures for accessing Internet Services and the general procedures for using the program. Detailed, step-by-step instructions for using Internet Services to install and set up a printer are provided in the appropriate network installation chapter of this guide.

Requirements

The requirements for accessing and using Internet Services include:

- A TCP/IP network
- A network workstation that has Microsoft Internet Explorer (version 4.0 or higher) or Netscape Navigator (version 4.0 or higher) installed.

Since you are using the Internet browser to access information that is resident on the network controller, it is not necessary to have a large amount of disk space available to use Internet Services. If the network workstation meets the configuration requirements for installing and running the Internet browser, then it will be sufficient for accessing and using Internet Services.

Accessing Internet Services

Once the copier/printer is connected and communicating on a TCP/IP network, you can access the Xerox Document Centre ColorSeries 50 Home Page using the Internet browser.

➤ **To access Internet Services:**

1　Obtain the IP Address for the printer.

2　At your workstation, start the browser. Enter the printer's IP Address as the URL (Universal Resource Locator) in the browser's *Address* or *Location* field and press **Enter**.

3　The Xerox Document Centre ColorSeries 50 Home Page is displayed.
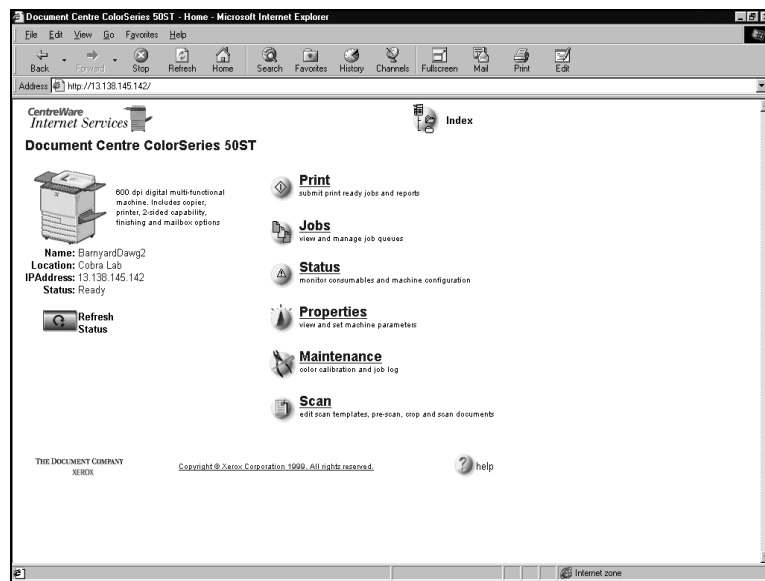
Using Internet Services

This section provides an overview of the Internet Services features and some of the tasks that may be performed using the software. Step-by-step procedures for using the software for network installations are provided in each of the network installation chapters. Comprehensive Internet Services user information is provided in the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Navigating Internet Services

The Xerox Document Centre ColorSeries 50 Home Page provides selections for the available Internet Services features pages. They are:
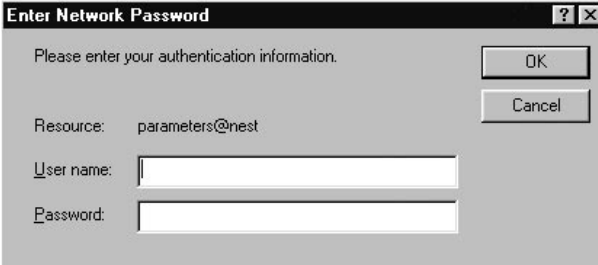
- Print
- Jobs
- Status
- Properties
- Maintenance
- Scan.

Clicking the button or link displays the associated feature tab.

Internet Services tabs are divided into a left and right frame. The left frame contains copier/printer status information. The width of the left and right frames can be adjusted by sliding the divider between the two frames. On some pages, information in the left frame is shown in tree or directory/folder format. Clicking the plus (+) sign will expand the tree, while clicking the minus sign (-) collapses the tree.

Security

If you change any settings affecting the printer configuration, such as network connectivity settings, you will be prompted to enter a User Name and Password.

To continue, enter the User Name and Password and click **OK**. The default User Name is **Admin** (with a capital "A") and the default Password is **11111**.

Use the following procedure to change the Internet Services Password.

➤ To change a password:

1 At the Home Page, click **Properties**. The Properties tab is displayed

2 In the Properties directory tree, click **Security**.

3 Enter a new password (minimum of 5, maximum of 15 characters) in the **Password** field. Passwords are case-sensitive.

4 Enter the same password in the **Verify Password** field.

5 Click **Apply New Settings**.

6 Enter the existing Password to complete the change.

Configuring Printer Connectivity Settings

The Properties tab is used to configure or modify the printer network connectivity settings. Connectivity properties pages are provided for AppleTalk, NetWare, TCP/IP, and SMB. Each page allows the modification of both the Physical Configuration and the Protocol Configuration for the selected network environment.

➤ **To view and change printer connectivity settings:**

1   At the Home Page, click **Properties**. The Properties tab is displayed.

2   In the Properties directory tree, click **Connectivity**+**Protocols**+**TCP/IP**. The TCP/IP settings page is displayed.
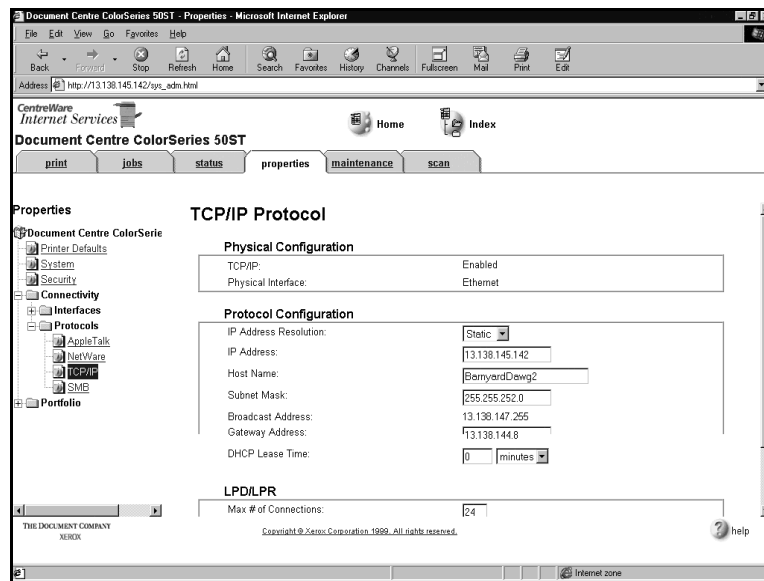
3   Review and modify the TCP/IP network connectivity settings as necessary.

4   Click **Apply New Settings**.

5   Enter the User Name and Password to complete the change.

Printing Reports

Printer reports can be printed using Internet Services. Options include a font listing, Configuration Report, and a test page.

➤ **To print a report:**

1   At the Home Page, click **Print**. The Print tab is displayed. Click on the **Reports** radio dial to display the Reports page.
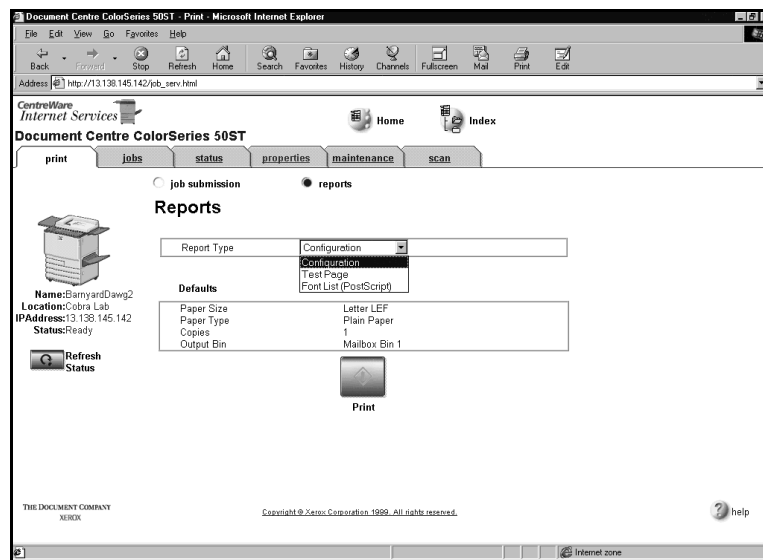
2   Select a Report Type from the drop-down list.

3   Review the Defaults information. Use the Properties tab to modify the default output selections if necessary.

4   Click **Print** to print the report.

5   Retrieve the printed report from the copier/printer.

Network Printer Drivers

Network printer drivers and PPDs for the printer are included on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM. The printer drivers and PPDs are installed on the user workstations to enable printing from the network. Printer drivers and PPDs are provided for the following workstation environments:

- Macintosh

- Microsoft Windows 3.X

- Microsoft Windows 95/98

- Microsoft Windows NT 4.0.

Instructions on when to install printer drivers are provided in the network installation chapters. Procedures for installing the printer drivers and printing a test page are provided in *Chapter 8 Printer Driver Installation.* Comprehensive printer driver installation and user information is provided in the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/ Printer Printer User Guide*.

Color Calibration Utilities

Color calibration software is also provided with the copier/printer. The software is used to calibrate the printer for consistent, accurate color and to adjust for variances that can occur over time due to changes in the environment. Color Calibration is a powerful tool for the professional color image designer, but it is also useful for anyone who creates business graphics or other color documents.

The Color Calibration Utilities are included on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM and support both Microsoft Windows and Macintosh workstation environments.

Detailed procedures for installing and using the Color Calibration Utilities are provided in the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Note: Color calibration may also be performed using CentreWare Internet Services. Procedures for calibrating the printer color with the Color Calibration Utilities and with CentreWare Internet Services are provided in the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Chapter 1

Network Printer Features

This chapter contains information on network printer features, including:

- Printer Models and Features
- Supported Network Environments
- Network Installation Overview
- Network Connectivity
- Copier/printer Control Panel
- Printer Reports.

Printer Models and Features

The printer is available either as a digital copier/printer (ST) or as a stand-alone printer (LP). The different models are easily identifiable as the ST model is equipped with a document scanner while the LP model is not.

Document Scanner

ST   LP
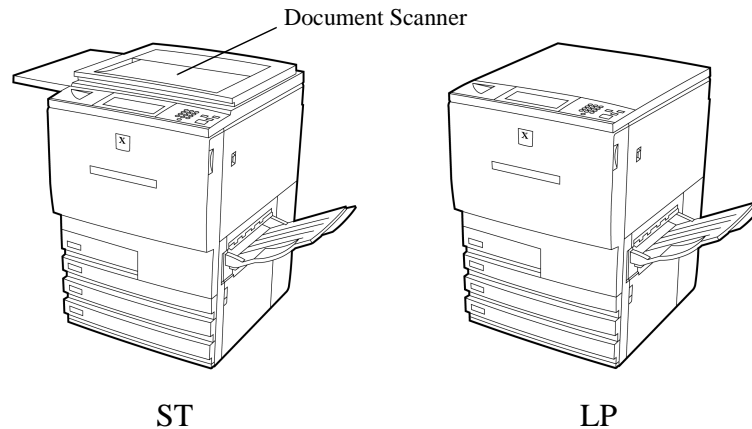
Both models connect to the network in the same manner and have the same printing capabilities. Printer features include:

■ Direct printing of PostScript files using Adobe PostScript 3 Raster Image Processing (RIP)

■ PostScript printer drivers are provided for printing from Windows (3.x, 95, 98, NT 4.0) and Macintosh network workstations

■ Direct IPX printing to support printing over NetWare networks

■ TCP/IP direct printing to support UNIX-style LPD/LPR printing over TCP/IP networks

■ Microsoft (SMB) network support for printing over NetBIOS/NETBEUI and NetBIOS/IP networks

■ Color calibration software to maintain consistent, accurate color printing over time and with changes in the printing environment.

Supported Network Environments

The printer supports the following network environments and connections.

Network Environment	Network Connections
NetWare 5.X *NDS*	Ethernet, Token Ring
NetWare 3.X and 4.X *Bindery, NDS, and TCP/IP*	Ethernet, Token Ring
TCP/IP	Ethernet, Token Ring
AppleTalk *EtherTalk*	Ethernet
Banyan VINES/IP	Parallel Port *(External print server)*
Microsoft (SMB) Networking NetBIOS/IP and NetBIOS/ NetBEUI	Ethernet, Token Ring

Network Installation Overview

The installation of the printer on a network is accomplished using a combination of the Control Panel, native network utilities, one of the Xerox network software programs, and a Xerox printer driver.

The following procedure provides an overview of the major steps associated with installing the printer on a network.

➤ **To install the printer on a network:**

1   Physically connect the printer to the network

2   Set up the network using native network utilities and procedures (if necessary)

3   Enable connectivity at the printer Control Panel (if necessary)

4   Configure printer connectivity settings from the workstation using one of the Xerox network software programs

5   Install a Xerox printer driver on your workstation

6   Print a test page.

These procedures may vary somewhat for the different network environments. Detailed instructions for installing and setting up the printer are provided in the network installation chapters of this guide.

Network Connectivity

Network connection ports are located on the printer controller on the lower rear of the printer. The printer is equipped with standard AUI and RJ-45 Ethernet connections and a parallel port to support external print server connections. The printer may also be equipped with an optional Token Ring port and adapter to support an RJ-45 Token Ring connection.

Network Controller

Network Connection Ports
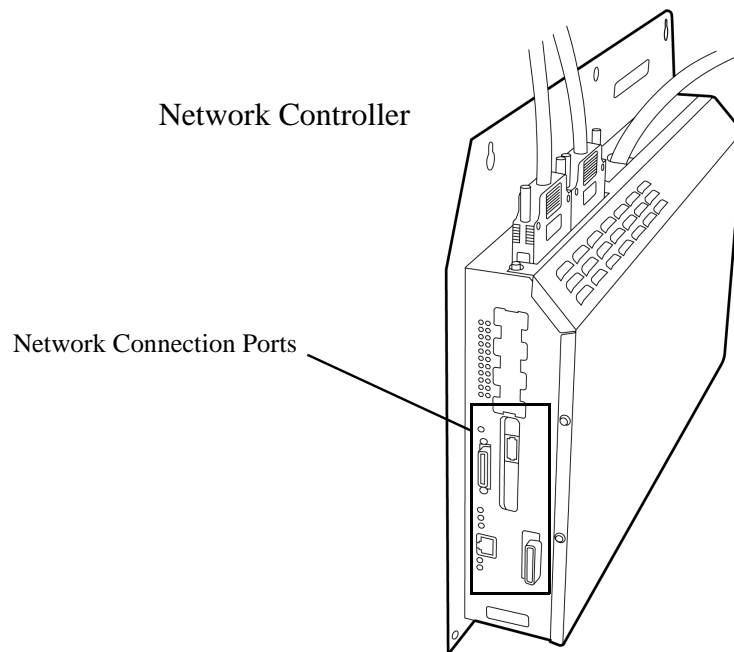
➤ **To update the printer controller software:**

1 It you need to upgrade or reinstall printer controller software, insert the Xerox Document Centre ColorSeries 50 CD-ROM that you receive from Xerox into the printer controller. The software installation process will begin automatically.

2 Note that no messages will be displayed on the Touch Screen during the software installation. The installation process will take approximately 10 minutes. Remove the CD-ROM when the process is completed.

RJ-45 Connection

The printer has one RJ-45 Type 3 connector supporting an unshielded twisted pair cable.
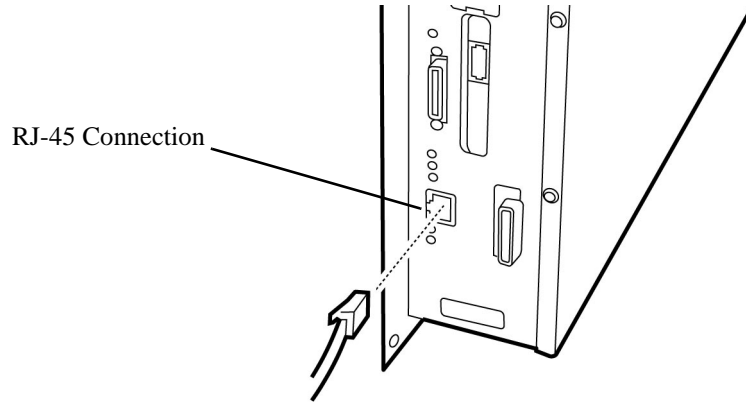
RJ-45 Connection

AUI Connection

The printer has one AUI connection.
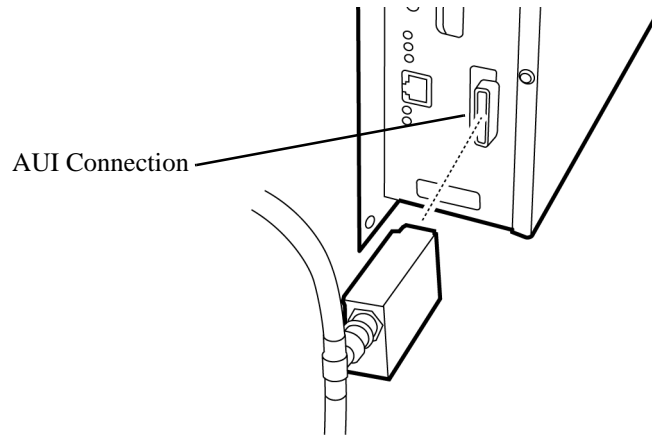
AUI Connection

Token Ring Connection

The printer can be equipped with an optional Token Ring connection.

Token Ring Connection
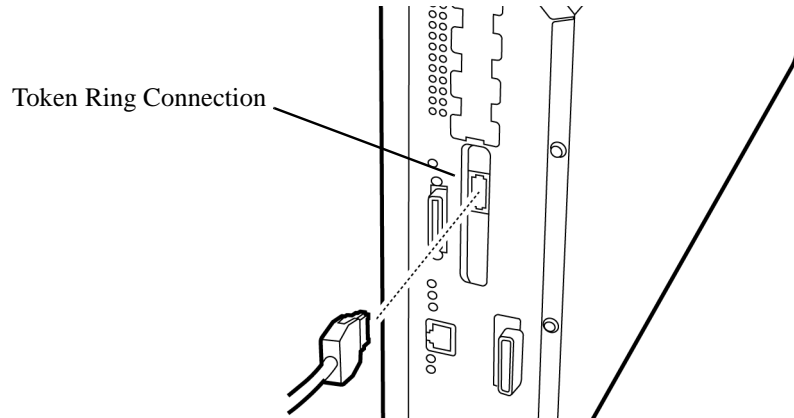
Parallel Port Connection

The printer is equipped with one parallel port to support uni-directional printing via an external print server. This connection supports Banyan VINES/IP network printing.

Parallel Port Connection
(for external print server)
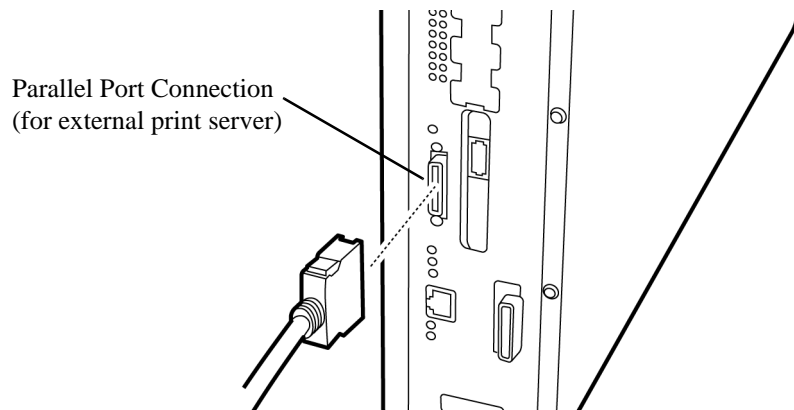
Printer Control Panel

Some of the printer network connectivity settings may be accessed and modified using the Control Panel buttons and the touch screen.

Touch Screen   Buttons
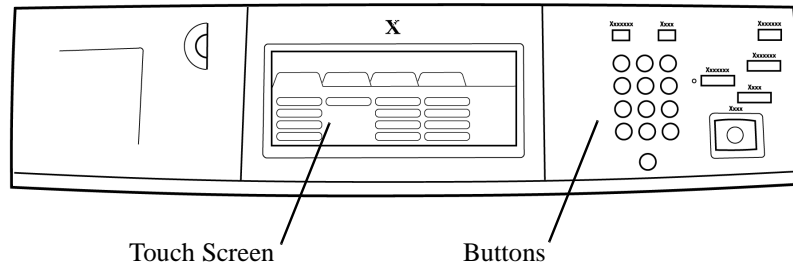
Use the following procedure to access the printer network connectivity settings at the Control Panel. Detailed instructions for installing and setting up the printer are provided in the network installation chapters of this guide.

➤ **To access printer connectivity settings:**

1   Press the **Administration** button on the Control Panel

2   Press **Tools** on the Touch Screen

3   Using the numbered buttons, enter your **Access Number** (default is 11111) and press **Enter** on the Touch Screen

4   Press **Machine Setup** on the Touch Screen. The list of available Items and their current settings is displayed.

5   To change an Item, press the Item on the Touch Screen list or use the scroll buttons to select the Item.

6   Press **Change Settings** on the Touch Screen.

7   Enter the desired value using the buttons and press **Save** on the Touch Screen.

8   Press **Close** on the Touch Screen repeatedly until you exit the Administration screens.

If you made any changes to the printer connectivity settings, the printer must be powered off and back on in order for the pending changes to take effect.

Printer Reports

There are several printer reports that are used to provide information about the printer settings and to test the printer. Available reports include:

■   Configuration Report

■   PS Font List

■   Test Page.

The printer reports may be selected and printed using one of the Xerox network software programs provided with the copier/printer. The procedures for selecting and printing a report are provided in *Chapter 2 Network Software*.

Chapter 3

Novell NetWare Network Installation

This chapter describes the activities needed to install the Xerox Document Centre ColorSeries 50 in a Novell NetWare 3.x, 4.x, or 5.x environment.

Before You Start

1 Either the CentreWare Printer Admin Services or CentreWare Internet Services network software provided with the copier/printer will be used during this procedure to customize the printer network connectivity settings.

Determine now which CentreWare network software you will use to perform this task. Refer to *Chapter 2 Network Software* for information on installing and using CentreWare Printer Admin Services and CentreWare Internet Services. This information will assist you in deciding which software to use.

2 For all NetWare environments, record the following information, making sure to capture upper and lower cases:

- **NDS Tree** and **NDS Context Name** (for NDS only)

- **Frame Type**

- **File Server Name**

- **Print Server Name**

- assigned **Print Server Password**.

3 When using Novell NetWare 4.x or 5.x for **a Bindery** installation, you must create the Queue and Print Server as Bindery objects, and know the context in which they are created. For a **Bindery** installation, you must also record the File Server Name.

4 When using Novell NetWare 4.x or 5.x for an **NDS** installation, you must create the Printer, Print Server and Queue, and know the Context and Tree Name in which they are created.

5 When using Novell NetWare version 3.x, you must have a Queue and Print Server created for the server, and know the Frame Type being used.

Step 1. Set Up the Printer

➤ **To set up the printer for network connectivity:**

1   Run NWADMIN, NWADMIN32 or PCONSOLE to set up a printer and queue objects. Refer to the Novell documentation, if needed.

2   Make certain that your printer is properly connected to the network with the appropriate cabling. See *Chapter 1 Network Printer Features* for detailed information on making the physical connections needed to install the printer on your network.

3   Press the **Administration** button, located on the copier/printer Control Panel.

4   Press **Tools** on the Touch Screen.

5   Using the keypad, enter your **Access Number** and then press **Enter** on the Touch Screen. The default Access Number is 11111. It may have been changed by a System Administrator.

6   Press **Machine Setup** on the Touch Screen. The list of available Items and their current settings is displayed.

7   Press **IP Address** in the Items list, or use the scroll buttons to locate the **IP Address** field.

8   Press **Change Settings** on the Touch Screen.

9   The IP Address must be entered with leading zeroes. For example, an IP Address of *13.145.200.4* must be entered as *013145200004*. After entering the IP Address using the keypad, press **Save**.

10 Press **Frame Type**, located in the Items list, or use the scroll buttons to locate the **Frame Type**.

11 Press **Change Settings** on the Touch Screen.

12 After pressing the desired button for **Frame Type**, press **Save**.

13 If you are using Token Ring, also set the **Source Routing** value.

14 Press **Close** repeatedly until you exit the Administration screens.

15 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

16 Continue with *Step 2 Customize Printer Connectivity Settings*.

Step 2. Customize Printer Connectivity Settings

In this step, you will use CentreWare Printer Admin Services or CentreWare Internet Services to enable NetWare connectivity.

Follow the instructions for the CentreWare network software that you will use to complete the network installation of your copier/printer. Continue with the section titled *Using CentreWare Printer Admin Services* below or *Using CentreWare Internet Services*, which begins on page 3-11.

Using CentreWare Printer Admin Services

➤ **To customize printer NetWare settings:**

1   Install the Printer Admin Services software. Refer to the section titled *Installing Printer Admin Services*, located in *Chapter 2 Network Software* for installation details. Refer to the *Using Printer Admin Services* section of *Chapter 2 Network Software* for information on additional Printer Admin Services functions.

2   Start the Printer Admin Services program. From a Windows workstation with Printer Admin Services installed, click **Start > Programs > Xerox CentreWare Color > Printer Admin Services**. The main window is displayed.

3   From the main Printer Admin Services window:

a)   Click **NetWare**.
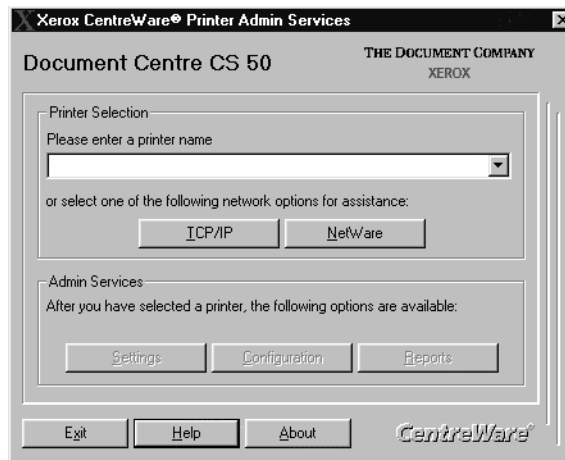
b)   Select the printer that you want to install from the list of printers. The default format name for a new copier/printer is *XRX_(Mac Address)*. An example of how your printer name would be listed is *XRX_08043E28A8AD*.

c)   Click **OK**.

d) Click **Settings** from the main window to display the printer connectivity settings tabs.
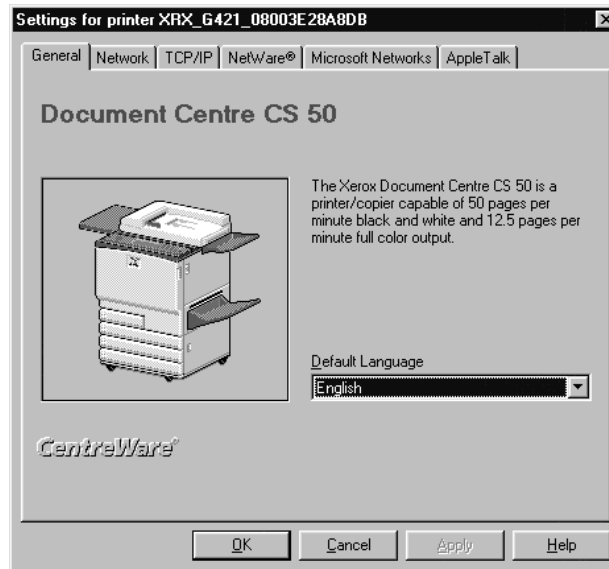
4   Click on the **Network** tab.
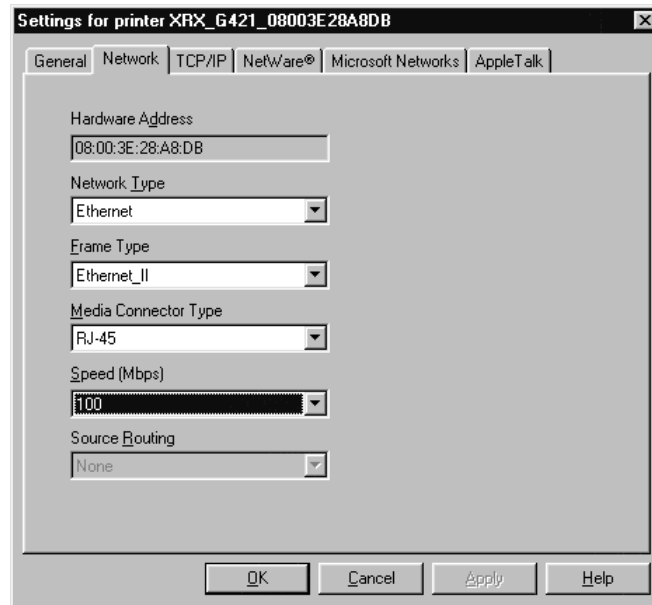
5   Review the Network settings. Verify that the settings are correct for your
    network environment. Make any necessary changes.

6   Click on the **NetWare** tab.
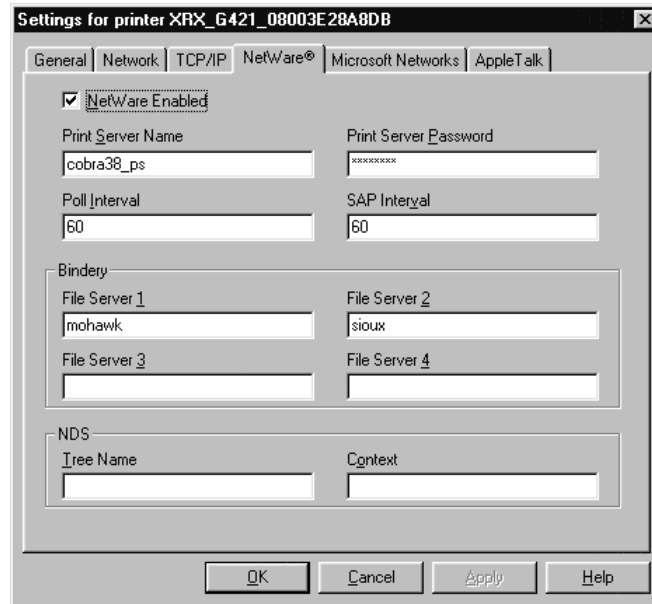
7   Review, and if necessary, edit the **Print Server Name**, **Print Server Password**, **Poll Interval** and **SAP Interval** settings.

a)   For a NetWare Bindery installation, you must also enter a name in the **File Server 1** field. Enter information in other fields as desired.

b)   For a NetWare NDS installation, enter information in the **Tree Name** and **Context** fields.

8   If you are using IP, continue with Step 9. If you are not using IP, proceed to Step 11.

9   Click on the **TCP/IP** tab.
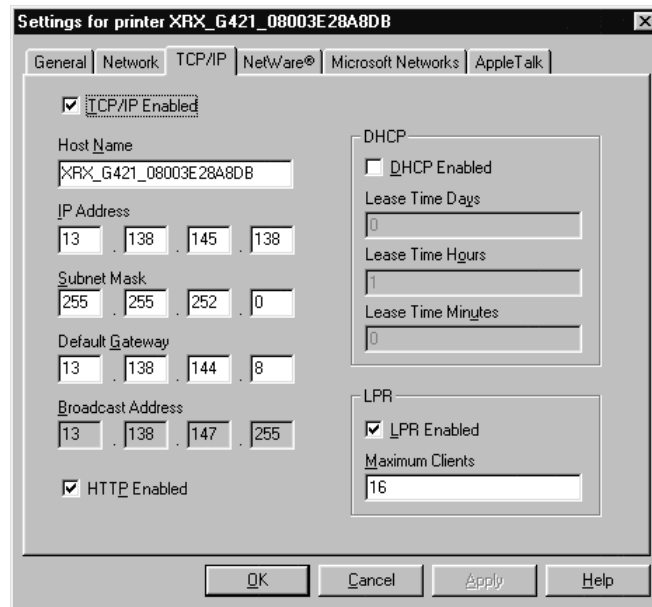
10 Review and edit any fields, if necessary. If you enable DHCP, be sure to save the new Configuration Report that will print approximately 5 minutes after you power off and power on the copier/printer (in Step 12 below), since the IP Address may have changed. You will need the new address the next time you access the settings.

11 When you have finished entering the Settings data, click **Apply**, **OK** and then **Exit**.

12 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

13 Continue with *Step 3 Print a Test Page*.

Using CentreWare Internet Services

➤ To customize printer NetWare settings:

1   At your workstation, open the Internet Explorer or Netscape Navigator browser.

2   In the browser, enter the IP Address for the printer, and press the **Enter** key. The Internet Services Home Page is displayed.

3   Click **Properties** to display the Properties tab menu and its directory tree.
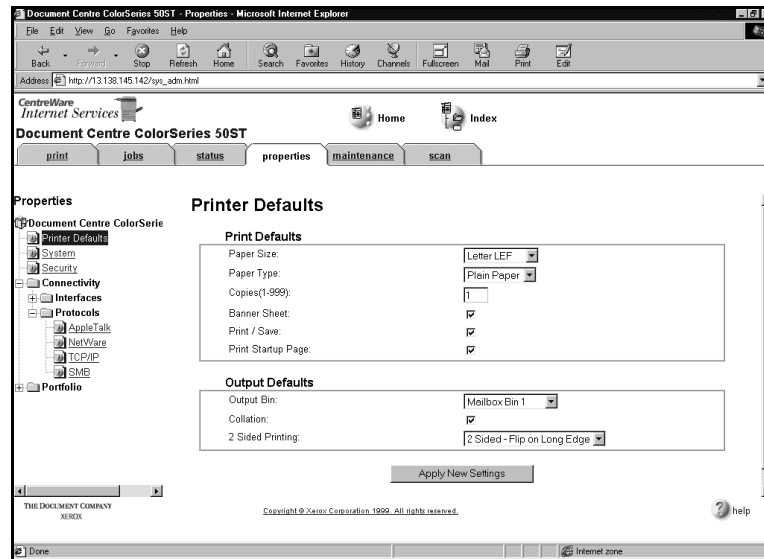
4   Click **Connectivity** + **Protocols** + **NetWare** in the Properties tab menu to view current NetWare information. You may need to scroll to view all of the available information.
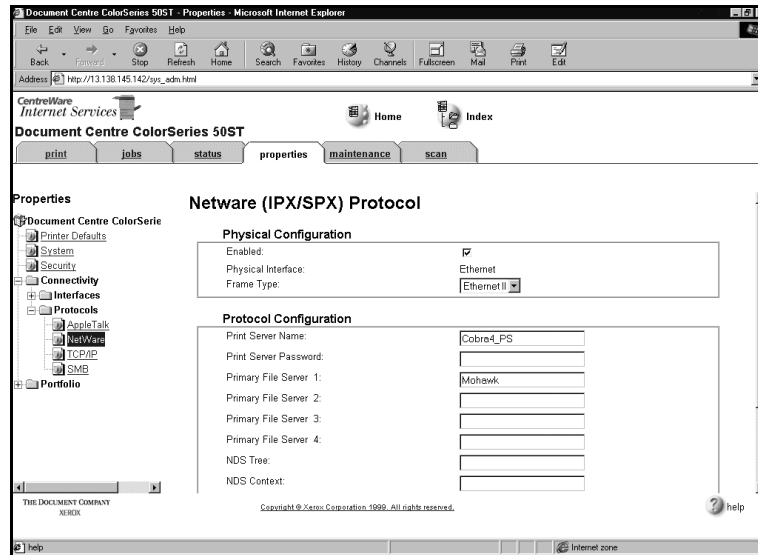
5   Review, and if necessary, edit the NetWare settings.

6   Click **Apply New Settings** if any changes were made.

7   Provide a **User Name** and **Password** when prompted. (The default User Name is **Admin** with a capital "A" and the default Password is **11111**.)

8   Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

9   Continue with *Step 3 Print a Test Page*.

Step 3. Print a Test Page

1   Install the network printer driver(s) for your workstation environment, and print a test page. Detailed instructions for installing printer drivers and printing a test page are provided in *Chapter 8 Printer Driver Installation*.

2   The network installation and setup of your copier/printer is complete. If you have encountered any problems during the installation process, refer to *Chapter 9 Troubleshooting* for assistance.

Chapter 4

Microsoft (SMB) Network Installation

This chapter describes the activities needed to install the copier/printer in one of the following Microsoft (SMB) networking environments:

- Microsoft Windows NT 4.0 NetBIOS/NetBEUI

- Microsoft Windows NT 4.0 NetBIOS/IP

- IBM LAN Server (OS/2 Warp) NetBIOS/NetBEUI

- IBM LAN Server (OS/2 Warp) NetBIOS/IP.

Before You Start

1 Either the CentreWare Printer Admin Services or CentreWare Internet Services network software provided with the copier/printer will be used during this procedure to customize the printer network connectivity settings.

Determine now which CentreWare network software you will use to perform this task. Refer to *Chapter 2 Network Software* for information on installing and using CentreWare Printer Admin Services and CentreWare Internet Services. This information will assist you in deciding which software to use.

2 You must create a Host (or SMB) Name and Workgroup. These should reside on an existing domain.

3 For a Windows NT installation, you must have Microsoft TCP/IP Printing Services installed.

4 If you are running NetBIOS/NetBEUI, you must use TCP/IP or NetWare for printer discovery.

Step 1. Set Up The Printer

➤ **To set up the printer for network connectivity:**

1 Make certain that your printer is properly connected to the network with the appropriate cabling. See *Chapter 1 Network Printer Features* for detailed information on making the physical connections needed to install the printer on your network.

2 Press the **Administration** button, located on the copier/printer Control Panel.

3 Press **Tools** on the Touch Screen.

4 Using the keypad, enter your **Access Number** and then press **Enter** on the Touch Screen. The default Access Number is 11111. It may have been changed by a System Administrator.

5 Press **Machine Setup** on the Touch Screen. The list of available Items and their current settings is displayed.

6 Press **IP Address** in the Items list, or use the scroll buttons to locate the **IP Address** field.

7 Press **Change Settings** on the Touch Screen.

8 The IP Address must be entered with leading zeroes. For example, an IP Address of *13.145.200.4* must be entered as *013145200004*. After entering the IP Address using the keypad, press **Save**.

9 From the Items list, locate and set the **Gateway Address** and **Subnet (Mask) Address** (as in Steps 6 through 8).

10 If you are using Token Ring, also set the **Source Routing** value.

11 Press **Close** repeatedly until you exit the Administration screens.

12 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

13 Continue with *Step 2 Customize Printer Connectivity Settings*.

Step 2. Customize Printer Connectivity Settings

In this step, you will use CentreWare Printer Admin Services or CentreWare Internet Services to enable Microsoft SMB connectivity.

Follow the instructions for the CentreWare network software that you will use to complete the network installation of your copier/printer. Continue with the section titled *Using CentreWare Printer Admin Services* below or *Using CentreWare Internet Services*, which begins on page 4-10.

Using CentreWare Printer Admin Services

➤ **To customize printer Microsoft SMB settings:**

1 Install the Printer Admin Services software. Refer to the section titled *Installing Printer Admin Services*, located in *Chapter 2 Network Software* for installation details. Refer to the *Using Printer Admin Services* section of *Chapter 2 Network Software* for information on additional Printer Admin Services functions.

2 Start the Printer Admin Services program. From a Windows workstation with Printer Admin Services installed, click **Start > Programs > Xerox CentreWare Color > Printer Admin Services**. The main window is displayed.
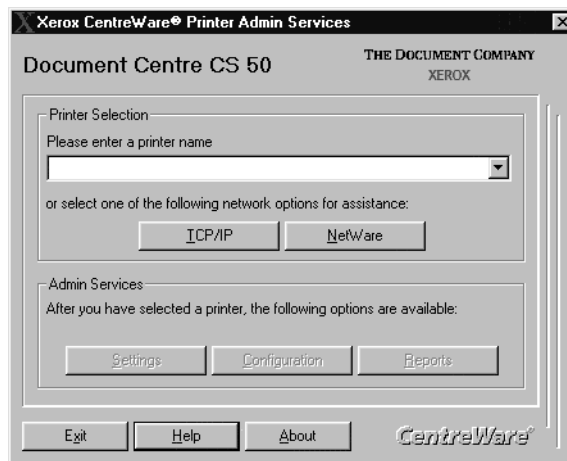
3   From the main Printer Admin Services window:

   a)   enter a printer name in the entry box if you know which printer to
        access and set up

   b)   click the down arrow to view and select a printer from the drop-down
        list

   c)   select the printer that you want to install from the list of printers.

4   Click **OK**.

5   Click **Settings** from the main window to display the printer connectivity
    settings tabs.

6   Click on the **Network** tab.

7   Review the Network settings. Verify that the settings are correct for your network environment. Make any necessary changes.

8   Click on the **Microsoft Networks** tab.
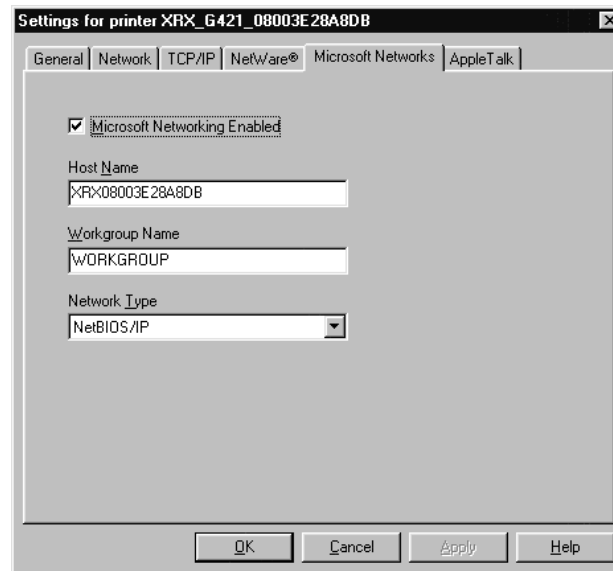
9   Review and edit any fields, if necessary.

10 If you are using IP, continue with Step 11. If you are not using IP, proceed to Step 13.

11 Click on the **TCP/IP** tab.
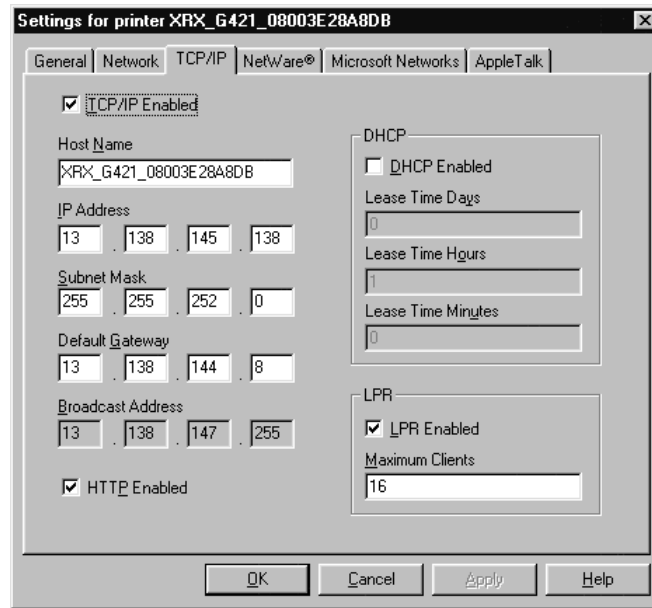
12 Review and edit any fields, if necessary. If you enable DHCP, be sure to save the new Configuration Report that will print approximately 5 minutes after you power off and power on the copier/printer (in Step 12 below), since the IP Address may have changed. You will need the new address the next time you access the settings.

13 When you have finished entering the Settings data, click **Apply**, **OK** and then **Exit**.

14 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

15 Continue with *Step 3 Print a Test Page*.

Using CentreWare Internet Services

➤ To customize printer Microsoft SMB settings:

1   At your workstation, open the Internet Explorer or Netscape Navigator browser.

2   In the browser, enter the IP Address for the printer, and press the **Enter** key. The Internet Services Home Page is displayed.

3   Click **Properties** to display the Properties tab menu and its directory tree.
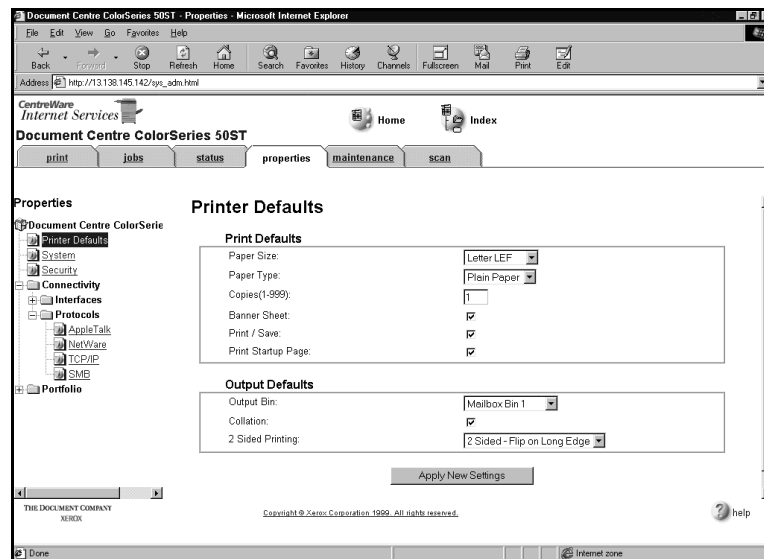
4 Click **Connectivity** + **Protocols** + **SMB** in the Properties tab menu to view current SMB information. You may need to scroll to view all of the available information.
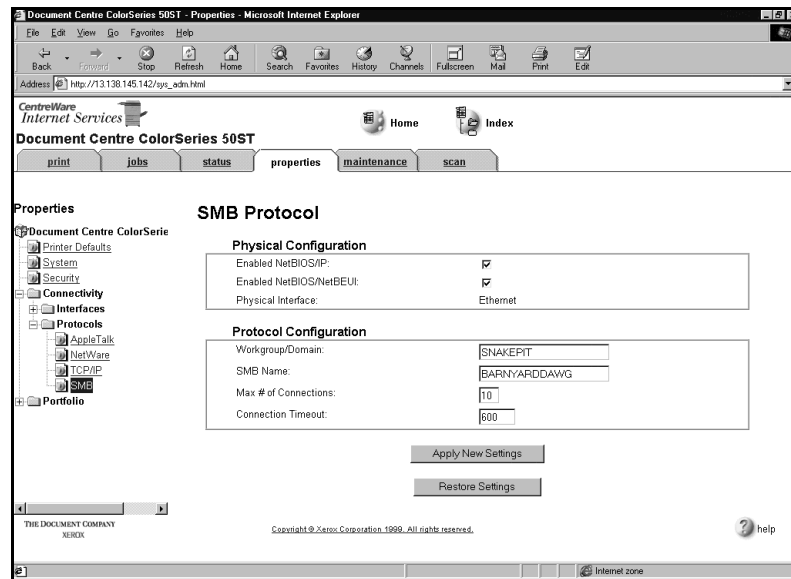
5 Be sure to enter the **Workgroup/Domain** name and the **SMB Name**. Review and edit any additional fields, as desired.

6 If you are using IP, continue with Step 7. If you are not using IP, skip to Step 9.

7 Click **Connectivity** + **Protocols** + **TCP/IP** in the Properties tab menu to view current TCP/IP information.

8 Make sure that the **IP Address**, **Host Name**, **Subnet Mask**, and **Gateway Address** are set to the correct values.

9   Click **Apply New Settings** if any changes were made.

10   Provide a **User Name** and **Password** when prompted. (The default User Name is **Admin** with a capital "A" and the default Password is **11111**.)

11   Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

12   Continue with *Step 3 Print a Test Page*.

Step 3. Print a Test Page

1　Install the network printer driver(s) for your workstation environment, and print a test page. Detailed instructions for installing printer drivers and printing a test page are provided in *Chapter 8 Printer Driver Installation*.

2　If you have configured your copier/printer for printing with *lpr/lpd*, use a native print tool to send a test page to the copier/printer.

3　The network installation and setup of your copier/printer is complete. If you have encountered any problems during the installation process, refer to *Chapter 9 Troubleshooting* for assistance.

Chapter 5

AppleTalk Network Installation

This chapter describes the activities needed to install the copier/printer in an AppleTalk environment.

Before You Start

1   CentreWare Internet Services network software provided with the copier/ printer will be used during this procedure to customize the printer network connectivity settings. The printer supports the AppleTalk Phase 2 protocol.

2   Make certain that your printer is properly connected to the network with the appropriate cabling. See *Chapter 1 Network Printer Features* for detailed information on making the physical connections needed to install the printer on your network.

3   Obtain a Configuration Report (printed approximately 5 minutes after every printer power off and on sequence, if this feature has not been disabled) to verify that AppleTalk is enabled, and to view other current settings on the copier/printer. If AppleTalk is not enabled, see *Step 1 Customizing Printer Connectivity Settings* for information on enabling AppleTalk.

4   Ensure that you have a Macintosh installer program. This is used to install the printer driver software.

5   Ensure you have a browser (version 4.0 or higher) on your Macintosh in order to use Internet Services. Internet Services can be used to review and change connectivity settings.

Step 1. Customize Printer Connectivity Settings

In this step, you will use CentreWare Internet Services to enable AppleTalk connectivity.

Using CentreWare Internet Services

➤ **To customize printer AppleTalk settings:**

1   At your workstation, open the Internet Explorer or Netscape Navigator browser.

2   In the browser, enter the IP Address for the printer, and press the **Enter** key. The Internet Services Home Page is displayed.

3   Click on the **Properties** button to display the Properties tab menu and its directory tree.
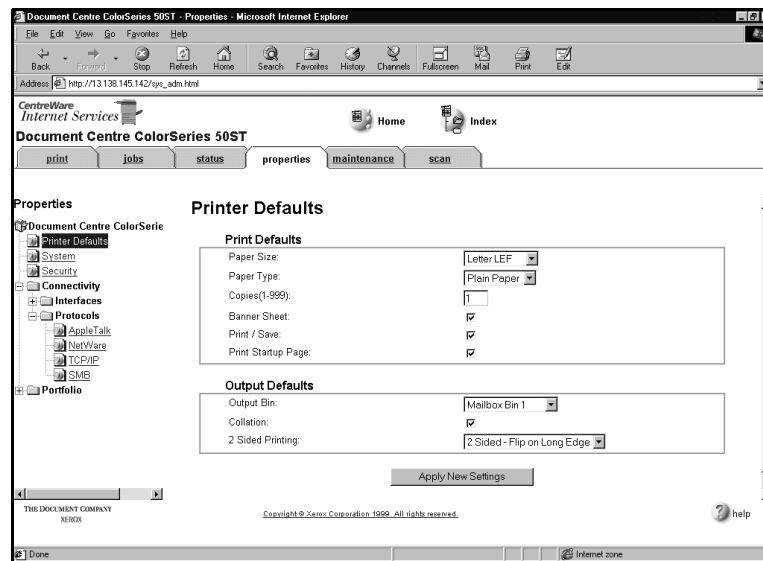
4 Click **Connectivity** + **Protocols** + **AppleTalk** in the Properties tab menu to view current AppleTalk information.
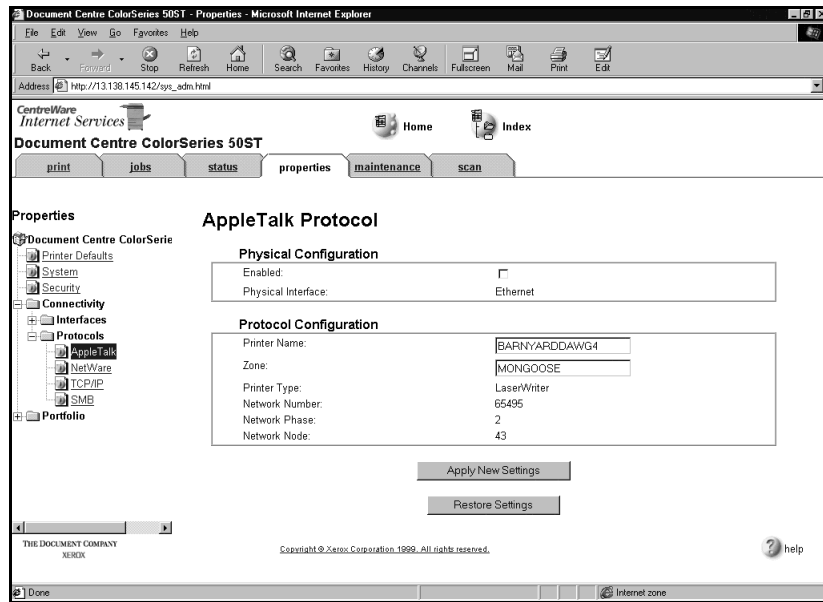
You may need to scroll to view all of the available information.

5 Review and edit fields, as desired.

6 Click **Apply New Settings** if any changes were made.

7 Provide a **User Name** and **Password** when prompted. (The default User Name is **Admin** with a capital "A" and the default Password is **11111**.)

8 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

9 Continue with *Step 2 Print a Test Page*.

Step 2. Print a Test Page

1   Install the network printer driver(s) for your workstation environment, and print a test page. Detailed instructions for installing printer drivers and printing a test page are provided in *Chapter 8 Printer Driver Installation*.

2   The network installation and setup of your copier/printer is complete. If you have encountered any problems during the installation process, refer to *Chapter 9 Troubleshooting* for assistance.

Chapter 6

TCP/IP Network Installation

This chapter describes the activities needed to install the copier/printer in a TCP/IP environment.

Before You Start

1 Either the CentreWare Printer Admin Services or CentreWare Internet Services network software provided with the copier/printer will be used during this procedure to customize the printer network connectivity settings.

   Determine now which CentreWare network software you will use to perform this task. Refer to *Chapter 2 Network Software* for information on installing and using CentreWare Printer Admin Services and CentreWare Internet Services. This information will assist you in deciding which software to use.

2 There are several items that must be provided prior to starting the installation procedure. These items serve as a checklist for each TCP/IP installation environment.

   ■ Print Service - You must configure the LPR daemon that you will be printing through.

   ■ Printer Type - You must configure the print daemon on the server to account for support of TEXT (ASCII) or RAW (PostScript) data.

   ■ Address Resolution - You must have STATIC or DHCP assigned.

   ■ Host Name - You must provide a DNS or local Host Name.

   ■ Subnet Mask - You must provide a Subnet Mask for the network to which your printer is currently connected.

   ■ Default Gateway - You must provide the default Gateway Address where your printer is located (through which packets are forwarded to other networks or subnets).

   ■ Frame Type

   ■ IP Address

Step 1. Set Up The Printer

➤ To set up the printer for network connectivity:

1   Make certain that your printer is properly connected to the network with the appropriate cabling. See *Chapter 1 Network Printer Features* for detailed information on making the physical connections needed to install the printer on your network.

2   Press the **Administration** button, located on the copier/printer Control Panel.

3   Press **Tools** on the Touch Screen.

4   Using the keypad, enter your **Access Number** and then press **Enter** on the Touch Screen. The default Access Number is 11111. It may have been changed by a System Administrator.

5   Press **Machine Setup** on the Touch Screen. The list of available Items and their current settings is displayed.

6   Press **IP Address** in the Items list, or use the scroll buttons to locate the **IP Address** field.

7   Press **Change Settings** on the Touch Screen.

8   The IP Address must be entered with leading zeroes. For example, an IP Address of *13.145.200.4* must be entered as *013145200004*. After entering the IP Address using the keypad, press **Save**.

9   If the **IP Address** is 0.0.0.0, you must enable **DHCP**.

10   From the Items list, locate and set the **Gateway Address** and **Subnet (Mask) Address** (as in Steps 6 through 8).

11   If you are using Token Ring, also set the **Source Routing** value.

12 Press **Close** repeatedly until you exit the Administration screens.

13 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

14 Continue with *Step 2 Customize Printer Connectivity Settings*.

Step 2. Customize Printer Connectivity Settings

In this step, you will use CentreWare Printer Admin Services or CentreWare Internet Services to enable TCP/IP connectivity.

Follow the instructions for the CentreWare network software that you will use to complete the network installation of your copier/printer. Continue with the section titled *Using CentreWare Printer Admin Services* below or *Using CentreWare Internet Services*, which begins on page 6-9.

Using CentreWare Printer Admin Services

➤ **To customize printer TCP/IP settings:**

1 Install the Printer Admin Services software. Refer to the section titled *Installing Printer Admin Services*, located in *Chapter 2 Network Software* for installation details. Refer to the *Using Printer Admin Services* section of *Chapter 2 Network Software* for information on additional Printer Admin Services functions.

2 Start the Printer Admin Services program. From a Windows workstation with Printer Admin Services installed, click **Start > Programs > Xerox CentreWare Color > Printer Admin Services**. The main window is displayed.
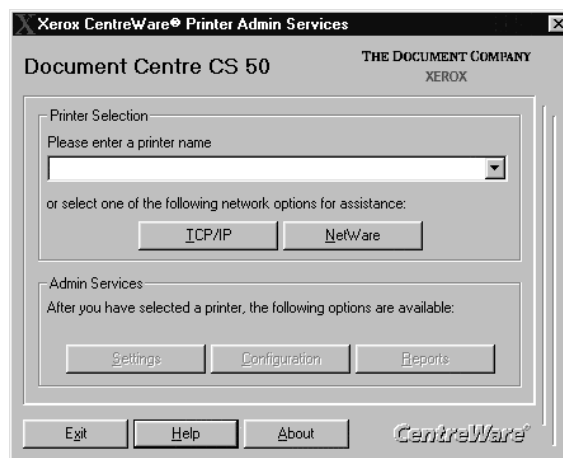
3   From the main Printer Admin Services window:

a)   Select the printer that you want to install from the list of printers or click **TCP/IP** for assistance in selecting an existing printer name. When the list appears, click on the target printer.

b)   The default format name for a new copier/printer is *XRX (IP Address) XRX*. An example of how your printer name would be listed is *XRX13_138_128_145XRX*. Note that the IP Address numbers of your printer, as shown in this example, are separated by underscore characters rather than dots.

c)   Click **OK**.

d)   Click **Settings** from the main window to display the printer connectivity settings tabs.
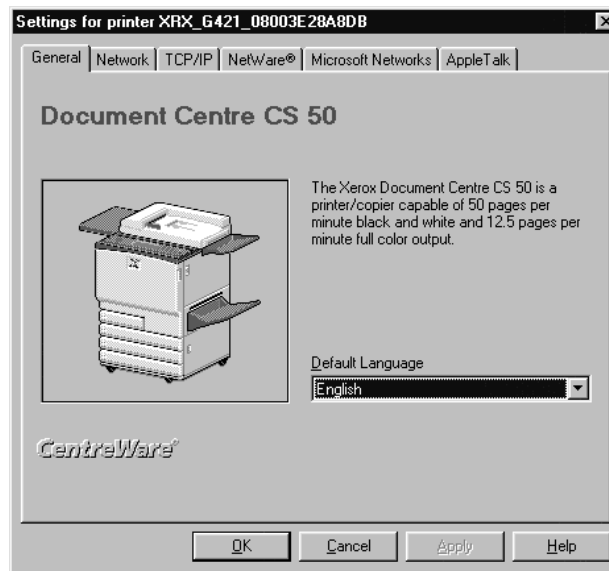
4   Click on the **Network** tab.
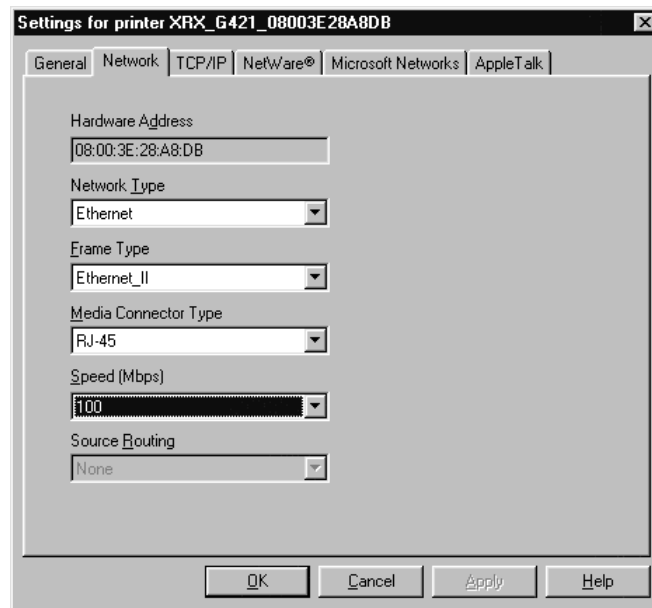
5   Review the Network settings. Verify that the settings are correct for your
    network environment. Make any necessary changes.

6 Click on the **TCP/IP** tab.
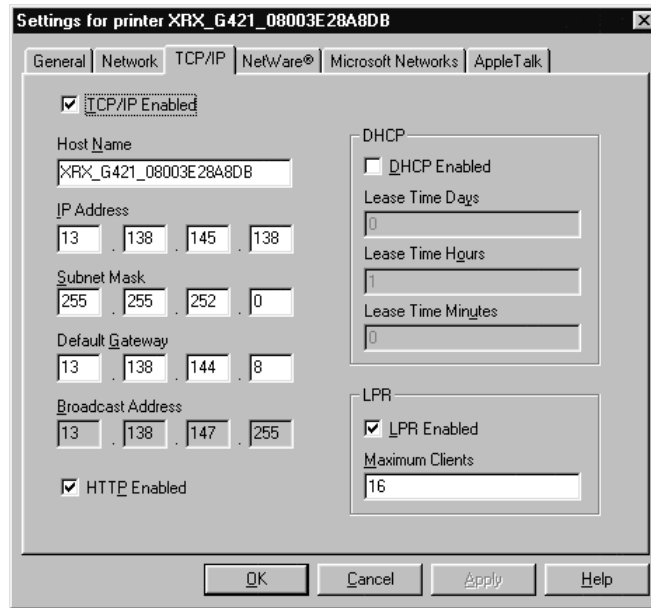
7 Review and edit any fields if necessary. If you enable DHCP, be sure to save the new Configuration Report that will print after you power off and power on the copier/printer, (in Step 9 below, if this feature has not been disabled), since the IP Address may have changed. You will need the new address the next time you access the settings.

8 When you have finished entering the Settings data, click **Apply**, **OK** and then **Exit**.

9 Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

10 Continue with *Step 3 Print a Test Page*.

Using CentreWare Internet Services

➤ To customize printer TCP/IP settings:

1 At your workstation, open the Internet Explorer or Netscape Navigator browser.

2 In the browser, enter the IP Address for the printer, and press the **Enter** key. The Internet Services Home Page is displayed.

3 Click **Properties** to display the Properties tab menu and its directory tree.
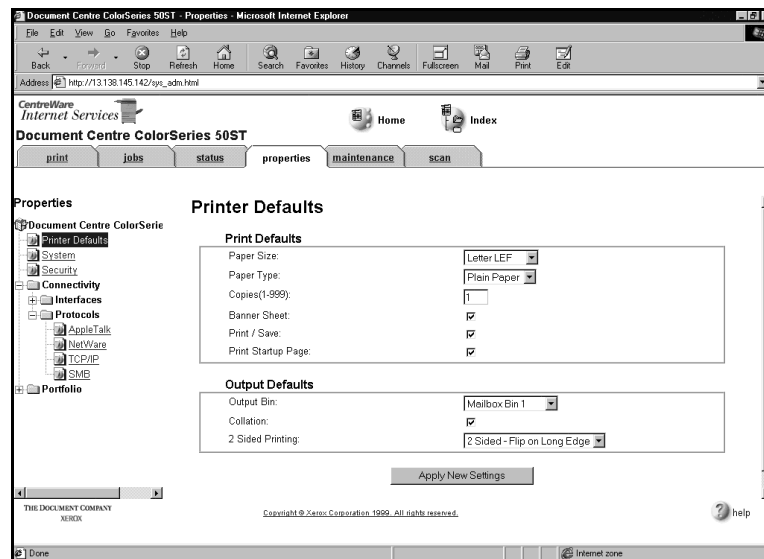
4 Click **Connectivity** + **Protocols** + **TCP/IP** in the Properties tab menu to view current TCP/IP information.
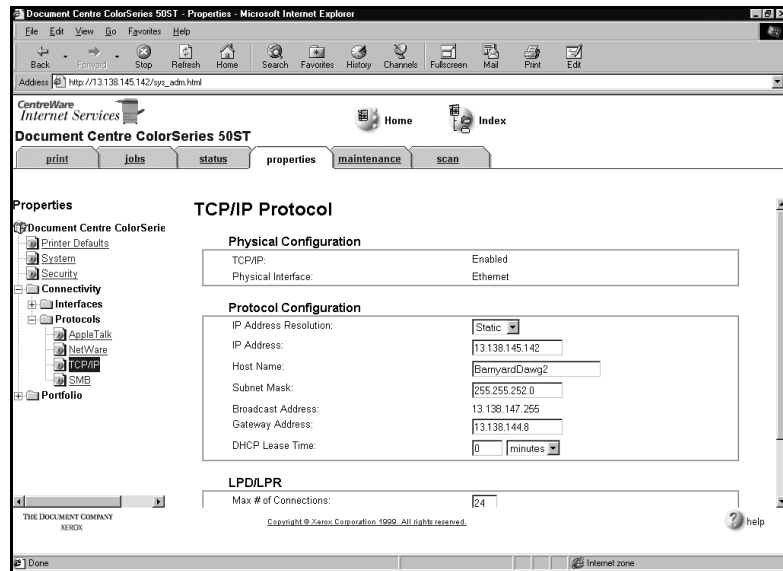
You may need to scroll to view all of the available information.

5   If the IP Address Resolution is **Static**, make sure that the **IP Address**, **Host Name**, **Subnet Mask**, and **Gateway Address** are set to the correct values. If the IP Address Resolution is **DHCP**, these fields will be read-only.

6   Click **Apply New Settings** if any changes were made.

7   Provide a **User Name** and **Password** when prompted. (The default User Name is **Admin** with a capital "A" and the default Password is **11111**.)

8   Power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print in approximately 5 minutes. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

9   Continue with *Step 3 Print a Test Page*.

Step 3. Print a Test Page

1 Install the network printer driver(s) for your workstation environment, and print a test page. Detailed instructions for installing printer drivers and printing a test page are provided in *Chapter 8 Printer Driver Installation*.

2 If you have configured your copier/printer for printing with lpr/lpd, use a native print tool to send a test page to the copier/printer.

3 The network installation and setup of your copier/printer is complete. If you have encountered any problems during the installation process, refer to *Chapter 9 Troubleshooting* for assistance.

Chapter 7

Banyan VINES Network Installation

This chapter describes the activities needed to install the copier/printer in a Banyan VINES environment.

Before You Start

1 The following External Print Port server, manufactured by Osicom, is recommended by Xerox for use with your copier/printer:

    ■   NETPrint 500 Elite with 10/100 Ethernet Auto-sensing.

Step 1. Make the Physical Connection

Parallel Port Connection

The copier/printer is equipped with one parallel port to support uni-directional printing via the External Print Port server. This connection supports Banyan VINES/IP network printing.

Refer to the documentation from Osicom for additional information on your External Print Port server. Installation instructions are included on the bottom of the External Print Port server.

Step 2. Set Up Banyan VINES

1   Information on steps such as setting up Banyan Print Service for the copier/printer and creating a Print Service on the file server can be found in your Banyan VINES documentation.

2   Refer to your Banyan VINES documentation for all steps needed to configure your copier/printer in a Banyan VINES environment.

Step 3. Print a Test Page

1   Send a test document to the copier/printer from a connected workstation that will be using the copier/printer.

2   The network installation and setup of your copier/printer is complete.

Chapter 8

Printer Driver Installation

This chapter describes the installation of printer drivers. The Document Centre ColorSeries 50 LP/ST Adobe PostScript printer drivers are multiple-environment drivers designed to enable printing from a workstation on a network to a Document Centre ColorSeries 50. The Document Centre ColorSeries 50 supports Adobe PostScript 3 version 3011.

The printer drivers contain a variety of feature options which enable you to customize your print jobs and enable fast, efficient printing from your connected workstation.

The Adobe PostScript printer drivers with custom PPDs (PostScript Printer Description) are provided on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM for the following environments:

- Microsoft Windows 3.X

- Microsoft Windows 95/98

- Microsoft Windows NT 4.0

- Apple Macintosh 7.x/8.x.

Note: For details on customizing printer driver options and submitting print jobs, see the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Microsoft Windows 3.X Printer Driver

Installing the PostScript Printer Driver

Use the Adobe installation program to install the Adobe PostScript printer driver on your Windows 3.x workstation.

➤ **To install the Adobe PostScript printer driver on your workstation:**

1 Ensure that the Adobe PostScript driver you want to install is available in an uncompressed format either locally or on a mapped network drive.

2 In the Program Manager, select **File > Run**. Type in or **Browse** to the Windows 3.x Adobe PostScript setup program.

The **setup** file for the Windows 3.x Adobe PostScript printer driver is located on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM in the *\Win\Drivers\Ps\Adbw311\xxx* directory, where *xxx* represents the desired language for your environment.

3 Click **OK**.

4 Click **OK** to start the installation.

5 Click **Accept** to accept the license.

6 View the Readme file by clicking **Read**. Click **Skip** to continue.

7 Click **Continue** to begin the installation.

8 Click **Restart Windows**. Windows restarts with the *Install PostScript Printer from PPD* screen displayed. This screen is used to install the PPD for the Document Centre Color Series 50.

9 Select the **Xerox Document Centre CS 50 PS PPD** in the *\Win\Drivers\Ppd\xxx* directory, where *xxx* represents the desired language for your environment.

10 Click **Install**.

11 Click **OK**.

12 Click **Close**.

13 Double-click the **Main** icon.

14 Double-click the **Control Panel** icon.

15 Double-click the **Printers** icon.

16 Click **OK**.

17 Click **Close**.

18 Double-click the **Main** icon.

19 Double-click the **Control Panel** icon.

20 Double-click the **Printers** icon.

21 Click **Connect** and make any modifications to the port connection settings.

22 Click **Setup** to access the Adobe PostScript printer driver.

23 Close any remaining windows, and remove the CD-ROM when finished.

The installation is now complete. To ensure that your printer is installed properly, perform the following procedure.

➤ **To print a test page:**

1 Open an application, such as Microsoft Word, and print a test page using the Adobe PostScript printer driver.

Note: For information on submitting print jobs, customizing print options, and uninstalling the PostScript printer driver, see the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Microsoft Windows 95/98 Printer Driver

Installing the PostScript Printer Driver

Use the Add Printer Wizard to install the Adobe PostScript driver on your Windows 95/98 workstation.

➤ **To install the Adobe PostScript printer driver on your workstation:**

1   Ensure that the Adobe PostScript driver you want to install is available in an uncompressed format either locally or on a mapped network drive.

2   Select **Start > Settings > Printers**.

3   Double-click the **Add Printer** icon.

4   On the Add Printer Wizard opening screen, click **Next**.

5   Select **Network Printer**. Click **Next**.

6   **Browse** to the printer network path or queue name and click **OK**.

7   Click **Next**.

8   Click **Have Disk**. Type or **Browse** to the drive or network path of the setup file for the Windows 95/98 Adobe PostScript printer driver.

   The *Ad95cs50.inf* file for the Windows 95/98 Adobe PostScript printer driver is located on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM in the *\Win\Drivers\Ps\Adbw95\xxx* directory, where *xxx* represents the desired language for your environment.

9   Click **OK**.

10 Verify the path and click **OK** to install the Adobe PostScript printer driver.

11 Accept the default name or rename the printer. Optionally, select the Xerox Document Centre ColorSeries 50 as your default printer.

12 Click **Next**.

13 Select **Yes** to print a test page.

14 Click **Finish**.

15 Close any remaining windows, and remove the CD-ROM when finished.

Note: For information on submitting print jobs, customizing print options, and uninstalling the PostScript printer driver, see the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Windows NT 4.0

Installing the PostScript Printer Driver

Use the Add Printer Wizard to install the Adobe PostScript driver on your Windows NT 4.0 workstation.

➤ **To install the Adobe PostScript printer driver on your workstation:**

1   Ensure that the driver you want to install is available in an uncompressed format either locally or on a mapped network drive.

2   Click on **Start** > **Settings** > **Printers**.

3   Double-click the **Add Printer** icon.

4   Select **Network Printer Server**. Click **Next**.

5   Type or select the printer queue path for the network. Click **OK**.

6   Click **OK** to install the printer driver.

   Click **Have Disk**. Type or **Browse** to the drive or network path of the NT 4.0 Adobe PostScript printer driver.

   The *Ad40CS50.inf* file for the Windows NT 4.0 Adobe PostScript printer driver is located on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM in the *\Win\Drivers\Ps\Adbnt40\xxx* directory, where *xxx* represents the desired language for your environment.

7   Click **OK**.

8   Select the desired printer in the window, and then click **OK**.

9   Specify if you want the Xerox Document Centre ColorSeries 50 as your default printer, and then click **Next**.

10   Select **Yes** to print a test page. Click **Finish** to complete the installation.

11   Close any remaining windows, and remove the CD-ROM.

Note: For information on submitting print jobs, customizing print options, and uninstalling the PostScript printer driver, see the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Macintosh Adobe PostScript Driver

Installing the PostScript Printer Driver

➤ **To install the Adobe PostScript printer driver on your workstation:**

1   Ensure that the Adobe PostScript 8.5.1 driver is available in an uncompressed format either locally or on a mapped network drive.

    If you are installing from the Xerox Document Centre ColorSeries 50 Network Software CD-ROM, insert the CD-ROM and double-click the CD-ROM icon when it is displayed on your desktop.

Note: Uncompress the *.bin* files found in the **\Mac** directory on the CD-ROM to your workstation using Stuffit Expander.

2   Locate the Xerox Document Centre ColorSeries 50 PPD. The PPD is located on the Xerox Document Centre ColorSeries 50 Network Software CD-ROM in the **Mac\Drivers\Ppd\xxx** directory, where *xxx* represents the desired language.

3   Move (drag and drop) the PPD to the **System Folder\Extensions\Printer Descriptions** folder on your workstation.

4   Locate the Adobe installation file. The installation program is located in the **Mac\Drivers\Ps\xxx** directory, where *xxx* represents the desired language.

5   Double-click the **Adobe PS Installer** icon. Click **Continue** on the introduction screen.

6   In the licensing screen, click **Accept**.

7   Verify the location for the driver file and click **Install**. The Adobe PostScript 8.5.1 printer driver is located in the **Mac\Drivers\Ps\xxx** directory, where *xxx* represents the desired language.

8   When the installation completes, click **Restart** to reboot your workstation.

You are now ready to configure the PPD.

Configuring the PPD File

The Xerox Document Centre ColorSeries 50 PPD (PostScript Printer Description) file can be used for printing with the printer driver and the Apple LaserWriter 8.x printer driver.

➤ **To configure the Macintosh PPD:**

1   In the Apple Chooser, select the Document Centre ColorSeries 50 or Apple LaserWriter 8.x printer.

2   Select the appropriate AppleTalk zone (if applicable) and one of the above printers.

3   Click **Create** (initial installation) or **Setup** (all subsequent installations) and select the PPD file for the Xerox Document Centre ColorSeries 50. The PPD screen appears.

4   On the PPD screen, click **Select PPD**.

5   If it is not already selected, highlight the **Xerox Document Centre ColorSeries 50 PS v.3011 PPD** in the list and click **Select**.

6   Click **OK**.

7   Optionally, on the PPD screen, click **Configuration** to modify the memory configuration and default output tray for the printer. Click **Printer Info** to view a listing of the current printer setup, such as printer name and PostScript level.

➤ **To print a test page:**

1   Open an application, such as QuarkXpress, and print a test page using the Macintosh printer driver.

2   The Xerox Document Centre ColorSeries 50 Macintosh driver installation and configuration is now complete.

Note: For information on submitting print jobs, customizing print options, and uninstalling the printer driver, see the *Xerox Document Centre ColorSeries 50 LP/ST Digital Color Copier/Printer Printer User Guide*.

Chapter 9

Troubleshooting

This chapter contains procedures for troubleshooting Xerox Document Centre ColorSeries 50copier/printer network problems.

These procedures will assist you in resolving problems experienced during the installation and operation of the copier/printer.

This section is grouped by network environment:

- Novell NetWare Networks

- Microsoft (SMB) Networks, including IBM LAN Server Networks

- AppleTalk Networks

- TCP/IP Networks.

Refer to the appropriate section of this chapter for information on your network environment.

Novell NetWare Networks

This procedure assumes that the printer is powered on and connected to a properly functioning network port using the correct cabling.

➤ To troubleshoot a Novell NetWare Network:

1   Print a Configuration Report from your printer using CentreWare Internet Services or CentreWare Printer Admin Services. See *Chapter 2 Network Software* for details on printing Configuration, and other, reports.

Note: If you are not able to print a Configuration Report from your workstation, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print.

2   Review the **Novell NetWare** area of the Configuration Report.

3   Verify that the following information is set correctly:

- **Ethernet** or **Token Ring** is ENABLED.

- **Frame Type** matches the Frame Type of the **Primary File Server**.

- **Primary File Server** is set to the name of the server that serves the print queue you have assigned to the printer. Setting the **Primary File Server** can be extremely important on larger networks.

- **NDS Tree** (for NetWare 4.x NDS and 5.x NDS) is set for the correct **NDS Tree** name.

- **NDS Context** (for NetWare 4.x NDS and 5.x NDS) is set for the correct **NDS Context**.

- **Print Server Name** is set for the name selected for this printer to act as a print server.

- **Print Server Password** is set correctly for the print server.

4   Check that NetWare 5.x IP has been set up correctly.

5   If any changes were made at the Control Panel, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

6   Verify that all changes made are reflected on the Configuration Report.

Microsoft (SMB) Networks

Microsoft NetBEUI Troubleshooting Steps

This procedure assumes that the printer is powered on and connected to a properly functioning network port using the correct cabling.

▶ **To troubleshoot a NetBEUI Network:**

1 Print a Configuration Report from your printer using CentreWare Internet Services or CentreWare Printer Admin Services. See *Chapter 2 Network Software* for details on printing Configuration, and other, reports.

Note: If you are not able to print a Configuration Report from your workstation, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print.

2 Review the **SMB** area of the Configuration Report.

3 Verify that the following information is set correctly:

- **NetBEUI Protocol** is Enabled.

- **Interface** is set to **Ethernet / NetBEUI** or **Token Ring / NetBEUI**.

- **Host Name** is set for the NetBEUI name selected for this printer.

- **Printer Name** is set for the name selected for this printer to act as a print server.

- **WorkGroup** is set for the name of the desired NetBEUI workgroup for this printer.

- **Number Connections** is set to a value of 8 or greater.

- **Connection Timeout** is set to a value between 100 and 9999.

4   If any changes were made at the Control Panel, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

5   Verify that all changes made are reflected on the Configuration Report.

Microsoft NetBIOS/IP Troubleshooting Steps

This procedure assumes that the printer is powered on and connected to a properly functioning network port using the correct cabling.

➤ **To troubleshoot a NetBIOS/IP Network:**

1 Print a Configuration Report from your printer using CentreWare Internet Services or CentreWare Printer Admin Services. See *Chapter 2 Network Software* for details on printing Configuration, and other, reports.

Note: If you are not able to print a Configuration Report from your workstation, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print.

2 Review the **SMB** area of the Configuration Report.

3 Verify that the following information is set correctly:

- **NetBEUI Protocol** is Enabled.

- **Interface** is set to **Ethernet / NetBIOS/IP** or **Token Ring / NetBIOS/IP**.

- **Host Name** is set for the NetBIOS/IP name selected for this printer.

- **Printer Name** is set for the name selected for this printer to act as a print server.

- **WorkGroup** is set for the name of the desired NetBIOS/IP workgroup for this printer.

- **Number Connections** is set to a value of 8 or greater.

- **Connection Timeout** is set to a value between 100 and 9999.

4   If any changes were made at the Control Panel, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

5   Verify that all changes made are reflected on the Configuration Report.

IBM Networks

OS/2 Troubleshooting

➤ **To troubleshoot an IBM OS2 Network:**

1   Check all IP Addresses and verify that you have set the printer address correctly at the copier/printer Control Panel.

2   Go to a connected workstation and use the **ping** command to determine if your server responds. If the server does not respond, you may have an addressing or network problem.

3   Use the **ping** command to see if your printer responds. If the printer does not respond, you may have an addressing or network problem. Correct these conditions by checking and resetting IP Addresses or cabling and then retry.

4   Use the **ping** command to see if your gateway responds. If the gateway does not respond, you may have an addressing or network problem. Correct these conditions by checking and resetting IP Addresses or cabling and then retry.

5   Check your router, subnet (if applicable), and gateway addresses. Incorrect addressing can render your lpr/lpd printing system unusable.

6   For OS/2 printing only, verify that LPRPORTD.EXE is running.

7   For OS/2 and WIN-OS/2 printing, verify that LPRMON.EXE is running.

8   Have you applied the appropriate IBM Fixpacks and APARs (see compatibility for required Fixpacks). If not, the proper Fixpack must be applied.

AppleTalk Networks

This procedure assumes that the printer is powered on and connected to a properly functioning network port using the correct cabling.

➤ To troubleshoot an AppleTalk Network:

1   Print a Configuration Report from your printer using CentreWare Internet Services or CentreWare Printer Admin Services. See *Chapter 2 Network Software* for details on printing Configuration, and other, reports.

Note: If you are not able to print a Configuration Report from your workstation, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print.

2   Review the **AppleTalk** area of the Configuration Report.

3   Verify that the following information is set correctly:

- **AppleTalk Protocol** is **Enabled**
- **AppleTalk Interface** is set to **Ethernet**
- **AppleTalk Name** is set for the name selected for this printer to act as a print server
- **AppleTalk Zone** is set for the zone selected for this printer.

4   If any changes were made at the Control Panel, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

5   Verify that all changes made are reflected on the Configuration Report.

6   Go to a connected workstation to verify that the printer is visible in the Chooser.

TCP/IP Networks

This procedure addresses a basic TCP/IP communication problem, and assumes that the printer is powered on and connected to a properly functioning network port using the correct cabling.

➤ To troubleshoot a TCP/IP Network:

1   Print a Configuration Report from your printer using CentreWare Internet Services or CentreWare Printer Admin Services and check the TCP/IP parameters. See *Chapter 2 Network Software* for details on printing Configuration, and other, reports.

Note: If you are not able to print a Configuration Report from your workstation, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print.

2   Review the **TCP/IP** area of the Configuration Report.

3   Verify that the following information is set correctly:

- **Host Name** (if you are using a UNIX network, the Host Name is case sensitive)
- **IP Address**
- **Subnet Mask**
- **Default Gateway**
- **Broadcast Address**.

4   Any one of these TCP/IP parameters, if set incorrectly, can cause TCP/IP communication problems. The Subnet Mask and Default Gateway are critical on multi-network segment LANs or WANs.

5   If any changes were made at the Control Panel, power off and power on the copier/printer. Allow at least 30 seconds between powering off and powering on the printer. A Configuration Report will print. The information on the Configuration Report can be very helpful in completing the network installation and troubleshooting problems with your copier/printer.

6   Verify that all changes made are reflected on the Configuration Report.

7   Go to a connected workstation located on the same subnet as the printer. At a command line prompt, type:

    ping nnn.nnn.nnn.nnn (where *nnn.nnn.nnn.nnn* represents the IP Address of the printer).

8   Try to **ping** the printer using its Host Name. If the ping is successful with the printer's TCP/IP Address, but not with its Host Name, then you may have a DNS name problem. Check the Default Gateway settings of the printer.

9   Add the printer Host Name to your local hosts file and try the **ping** tests again.

10 Try to **ping** other TCP/IP nodes on your network. This will verify proper operation of your workstation's network card. Try to **ping** the printer from another connected workstation. If the previous steps fail, you may have a configuration problem at your local workstation. You may also have a network problem.

11 If Dynamic IP Addressing is enabled, try setting a Static IP Address.

12 Power off and power on the printer, and check for connectivity again with the **ping** command.

13 If the above troubleshooting procedure fails, you may have a malfunctioning Network Interface or bad network cable. Manually set the IP Address, Subnet Mask and Default Gateway at the copier/printer Control Panel. Wait for the printer to reset, and try to **ping** the printer again.

Chapter 10

Glossary

This chapter contains an alphabetical list of words and phrases used in this guide and in conjunction with the Xerox Document Centre ColorSeries 50 copier/printer.

A similar Glossary can be displayed online using CentreWare Internet Services by selecting the Help button, and then selecting Glossary in the Help directory tree.

Glossary

10Base2	A cable used for networking. It is a coaxial cable consisting of a center wire and a shield separated by an insulating material. It is commonly called Thinnet.
10Base5	A cable used for networking. It is a coaxial cable consisting of a center wire and a shield separated by an insulating material. It is often called Thicknet.
10Base-T	An implementation of the Ethernet IEEE standard on 24 gauge twisted-pair wiring, a baseband medium, at 10 megabits per second. It is composed of two insulated wires twisted together. 10Base-T cable can be shielded or unshielded. Shielded cable provides more protection from noise than unshielded cable.
802.3	Defined by the IEEE, these standards govern the use of the CSMA/CD (Carrier Sense Multiple Access/Collision Detection) network access method used by Ethernet networks.
802.5	Defined by the IEEE, these standards govern the use of the Token Ring network access method.
ALAP	An acronym for AppleTalk Link Access Protocol. In an AppleTalk network, this link access (or data link-layer) protocol governs packet transmission on LocalTalk.
ANSI	An acronym for American National Standards Institute. This is the principal group in the United States for determining standards. ANSI represents the United States in the ISO.
AppleShare	Apple Computer's network system implementing the AppleTalk protocol.

AppleTalk   Protocol suite defined by Apple Computer for connecting computers and peripherals using shielded twisted-pair wiring and transfer rates of about 230.4 kilobytes per second. The network and transport-level protocols include Datagram Delivery Protocol (DDP), AppleTalk Transaction Protocol (ATP), AppleTalk Session Protocol (ASP), and the Name Binding Protocol (NBP).

ARP   An acronym for Address Resolution Protocol. TCP/IP protocol for determining a DLC (Data-Link Control) address from an IP (Internet Protocol) address.

ASCII   An acronym for American Standard Code for Information Interchange. A seven-bit binary code standardized by ANSI for use by personal computers and some mainframes to represent alphanumeric and graphical characters. An additional bit is included to form an eight-bit character byte.

AUI   An acronym for Attachment Unit Interface. Connector used with thick Ethernet that often includes a drop cable. See Transceiver.

Automatic Discovery A method of automatically discovering network resources, using the installed network operating system, such as NetWare.

Banyan VINES   See File Server.

bi-directional printing A method of printing where data signals are sent in both directions between the workstation and the printer.

Bindery   NetWare database of user names, passwords, groups, and accounting information.

BNC   A standardized connector used with Thinnet and coaxial cable.

Broadcast Address	The Broadcast Address, in combination with the Subnet Mask, identifies other hosts on the subnet to which the host will send broadcast messages.
Bus Topology	A network topology in which nodes are connected to a single cable with terminators at each end.
Client	A network node that requests network services from a server, usually the workstation or PC.
Coaxial cable	Data transmission medium with a single-wire conductor insulated EMI/RFI (Electromagnetic Interference/Radio Frequency Interference).
CPU	An acronym for Central Processing Unit. A personal computer's primary microprocessor chip.
CSMA/CA	An acronym for Carrier Sense Multiple Access With Collision Avoidance. Network access method using contention similar to CSMA/CD used by LocalTalk networks. Unlike CSMA/CD, in this method the sending node requests permission to send from the intended receiving node. If the receiving node responds with a clear to send signal, transmission begins.
CSMA/CD	An acronym for Carrier Sense Multiple Access/Collision Detection. Network access method in which nodes contend for the right to send data. If two or more nodes attempt to transmit at the same time, they abort their transmission until a random period of microseconds has transpired and will then attempt to resend.
DB-9	A standardized connector with 9 pins for Token Ring and serial connections.
Device Discovery	The term used for remote client applications detecting devices on the network. See Manual Discovery and Automatic Discovery.

DHCP	An acronym for Dynamic Host Configuration Protocol. A protocol allowing the principal parameters of network devices (including IP Addresses) to be configured by central DHCP servers.
Direct Connect	Direct Connect is the method used to attach a printer to a workstation via a parallel, Ethernet or Token Ring interface.
DNS	An acronym for Domain Name Service. A TCP/IP protocol for discovering and maintaining network resource information distributed among different servers.
DOS	An acronym for Disk Operating System. The operating system developed by Microsoft and often ported by computer manufacturers such as IBM to run on their computers.
driver	Software that is loaded on the client workstation that prepares data to be sent to or received from the copier/printer. Also called a printer driver.
EMI/RFI	An acronym for Electromagnetic Interface/Radio Frequency Interference. A form of "noise" on data transmission mediums that can reduce data integrity and increase transmission errors.
Ethernet	A 10 megabits per second baseband, CSMA/CD network originally designed by Xerox Corporation. Network transport technology commonly used to send data from one node to another.

Ethernet Address	The Ethernet Address is a unique address that identifies a device on a network. The Ethernet Address is built into the device when it is manufactured. The Ethernet Address consists of six bytes of information and is expressed as hexadecimal numbers with the bytes separated by colons.

(Example: 00:00:08:D4:05:14) |
EtherTalk	AppleTalk protocol governing Ethernet transmissions. Also the Apple Computer Ethernet adapter and drivers. The first implementation, Phase 1, was replaced by Phase 2 in 1989.
External Print Box	Also referred to as an External Print Support Box. A third party device connected to the printer parallel port in support of a protocol such as Banyan VINES.
file server	A network environment in which the nodes communicate with a file server, and not directly with other nodes. NetWare 3.12 and Banyan VINES are file server networking products.
frame	A group of data sent through the network. Also called a "packet" or a "message". There are several different types of frames. The data is arranged differently in different types of frames. Nodes on a network must be set up for the same Frame Type in order to communicate.
FTP	An acronym for File Transfer Protocol. A TCP/IP application protocol governing file transfer.
Full Duplex	A method of transmission that can send and receive at the same time.
Gateway	A hardware method by which dissimilar networks exchange information.

Gateway Address The Gateway Address is the IP Address of the gateway, or router, that the copier/printer will use to access devices on other subnets.

GUI An acronym for Graphical User Interface. Icon oriented style of screen display originally designed by Xerox.

Half Duplex Method of communication where each character sent is echoed back to its origin.

Host Name An ASCII character string name representing the printer location for the TCP/IP protocol.

HTTP An acronym for HyperText Transport Protocol. This is the Internet standard that supports the exchange of information on the World Wide Web (WWW). HTTP lays the foundation for transparent access to the Internet.

IEEE An acronym for Institute of Electrical and Electronics Engineers. A professional organization within the ISO that assists with the creation of networking standards. This is an organization of engineering and electronics professionals notable for developing the IEEE 802 standards for the physical and data-link layers of local area networks, following the ISO Open Systems Interconnection (OSI) model.

Internetwork A collection of two or more connected networks that may be dissimilar.

Internetwork Packet eXchange See IPX.

IP	An acronym for Internet Protocol. TCP/IP protocol governing packet forwarding.
IP Address	See TCP/IP.
IPX	An acronym for Internetwork Packet eXchange. Novell NetWare protocol similar to IP (Internet Protocol). It routes packets to the correct node and to the correct process within the node.
ISO	An acronym for International Standards Organization. A committee of industry leaders who develop telecommunication and application standards. The ISO developed the Open Systems Interconnection (OSI) model.
LAN	An acronym for Local Area Network. A system of software and hardware connected by a common data transmission medium and limited to a geographical area less than about 10 kilometers.
LLC	An acronym for Logical Link Control. A layer 2 protocol governing transmission, also known as the IEEE 802.2 standard.
Local Area Network	See LAN.
LocalTalk	A 230 kilobits per second baseband network using the CSMA/CA access method.
LPD	An acronym for line printer daemon. This is a print management program that runs on a host.
LPR	An acronym for Line Printer spooling. A method of printing to a network printer.
MAC	An acronym for Medium Access Control. A layer 2 protocol governing access to transmission media.

Manual Discovery	The person using the workstation or the PC is responsible for providing a list of devices, device information and associated queues by using an operating system utility.
MAU	An acronym for Multi-station Access Unit. A concentrator or transceiver for attracting nodes to a transmission medium.
message	See Frame.
MIB	An acronym for Management Information Base. A database of network management information used by CMIP (Common Management Information Protocol) and SNMP (Simple Network Management Protocol).
NCP	See NetWare Core Protocol.
NetBIOS/NetBEUI	A peer-to-peer networking system using the NetBEUI protocol.
NetBIOS/IP	A peer-to-peer networking system using the IP protocol.
NetWare	Novell's network operating system using IPX (Internetwork Packet eXchange) and SPX (Sequential Packet eXchange) protocols. Clients log onto one or more file servers which provide services such as mail, printing, and filing.
NetWare Core Protocol	A protocol used by a NetWare client to request services from a NetWare server.
NFS	An acronym for Network File System. Sun Microsystems's network operating system based on TCP/IP protocols.
Node	A device on a network that has an address and can send and/or receive data to and from other devices on the network.

NOS	An acronym for Network Operating System.
OID	An acronym for Object ID.
OS	An acronym for Operating System.
OS/2	IBM/Microsoft's multithreaded, multitasking, single-user operating system.
packet	A collection of bits comprising data and control information formatted for transmission from one node to another. Also see Frame.
PCL	An acronym for Printer Control Language, which is used by Hewlett-Packard. This is a set of commands that tell a printer and printer driver how to print a document.
PCL5e	A Hewlett-Packard Printer Control Language (PCL) that was the first version of PCL to support bi-directional communication between printer and computer.
PCONSOLE	A NetWare utility that can be used to create, configure, monitor, and manage queues in a NetWare server, and to attach print servers to the queues.
PDL	An acronym for Page-Description Language. This refers to a programming language, such as PostScript, that is used to describe output to a printer or a display device, which then uses the instructions from the PDL to construct text and graphics to create the required page image.

Peer to Peer network	A system in which two or more nodes or processes can initiate communications with each other. Usually describes a network in which all nodes have the ability to share resources with other nodes so that a dedicated server can be implemented but is not required. Windows for Workgroups, NetWare Lite, and Macintosh System 7 are examples of peer-to-peer networking products.
PPD	An acronym for PostScript Printer Description files.
printer driver	See Driver.
protocol	The rules that control the transmitting and receiving of data.
protocol stack	A representation of the hierarchical nature of a protocol suite.
protocol suite	A hierarchical set of related protocols.
queue	Pronounced "Q". A place where jobs are stored temporarily, while they are waiting to be processed. A print queue will hold multiple print jobs. A printer that is attached to the print queue will print the jobs one at a time.
RAM	An acronym for Random Access Memory. Memory in which data is temporarily stored for processing.
RARP	An acronym for Reverse Address Resolution Protocol. A TCP/IP protocol governing the translation of a DLC (Data Link Control) address to an IP (Internet Protocol) address. This is a method for providing IP Addresses to nodes on a network. When a node powers up, it broadcasts a RARP packet containing its Ethernet Address. The RARP server receives the packet and sends the IP Address back to the node.

repeater	A device that regenerates and often amplifies signals to extend transmission distance. It is independent of protocol and media.
RG-58	Coaxial cable with 50-ohm impedance used by Thinnet.
RIP	An acronym for Raster Image Processing.
RJ-45	Eight-wire modular connectors for Ethernet, Token Ring, StarLAN networks, and some phone lines.
router	A device that directs network packets to the segment of the network for which the packet is intended, and excludes packets that are not intended for a segment. Routers reduce unnecessary network traffic and control access to segments of the network.
SAP	An acronym for Server Advertising Protocol. Nodes on a NetWare network broadcast "SAP packets" at intervals to advertise their presence to other nodes.
SMB	A term referring to Microsoft networking.
SNMP	An acronym for Simple Network Management Protocol. TCP/IP protocol governing network monitoring.
SPX	An acronym for Sequential Packet eXchange. Novell's implementation of SPP (Sequential Packet Protocol). It ensures that packets are received in the correct order and that there are no errors.

Subnet Mask	There are approximately 4.3 billion different addresses in the IP Address range of 000.000.000.000 to 255.255.255.255. These addresses can be divided into smaller, and much more manageable, subnetworks, or subnets. The Subnet Mask identifies which part of the IP Address contains the Subnet Address and which part contains the host (or device) address.
TCP	An acronym for Transmission Control Protocol. TCP/IP protocol governing sequenced data.
TCP/IP	An acronym for Transmission Control Protocol/ Internet Protocol. A protocol suite developed by ARPA (Advanced Research Projects Agency). TCP/IP is a set of communications protocols that is supported by a variety of computer platforms. TCP controls the data transfer and IP controls the routing of the data. The IP Address is a unique address that identifies a device in a network. The IP Address consists of four bytes of information and is expressed as decimal numbers with the bytes separated by periods.
	(Example: 13.1.188.2)
Telnet	TCP/IP protocol governing character-oriented terminal data.
Thicknet	Cabling scheme using twin axial cable. See 10Base5.
Thinnet	Cabling scheme using 50 ohm coaxial cable. See 10Base2.
TIFF	An acronym for Tagged Image File Format.
Token	The character sequence passed among nodes in sequence to indicate which one has permission to transmit.

Token passing	Network access method that requires nodes to wait for their turn before transmitting data. Turns are indicated by a character sequence that passes from one node to the next.
Token Ring	A 4 megabit per second or 16 megabit per second network using a ring topology and a token passing access method.
transceiver	An AUI (Attachment Unit Interface) device for receiving and transmitting data that often provides collision detection as well.
twisted-pair cable	A wiring scheme with one or more pairs of 18 to 24 gauge copper strands which are twisted to improve protection against electromagnetic and radio frequency interference. Cable may be either shielded or unshielded. See 10Base-T.
type 1 cable	Shielded two-pair cable.
type 3 cable	Unshielded twisted-pair cable.
type 5 cable	Shielded twisted-pair cable.
uni-directional printing	A method of printing whereby signals are sent in one direction only from the workstation to the printer.
WAN	An acronym for Wide Area Network. A network capable of transmissions over large geographic areas, using transmission lines provided by a common-carrier.
workstation	A networked computer typically reserved for end-user applications.
WWW	An acronym for World Wide Web.
Zone	One or more connected AppleTalk networks grouped according to network usage.

Index

Numerics

10Base2, 10-2
10Base5, 10-2
10Base-T, 10-2

A

About this Guide, ii
Adobe PostScript 3 Raster Image
    Processing, see PostScript
ANSI, 10-2
AppleShare, 10-2
AppleTalk, 1-3, 5-7 to 5-9, 10-3
ARP, 10-3
ARPA, 10-13
ASCII, 10-3
AUI, 1-6, 10-3
Automatic Discovery, 10-3

B

Banyan VINES, 1-3, 1-7, 7-1, 7-3,
    10-3, 10-6
Bindery, 3-2, 10-3
BNC, 10-3
Broadcast Address, 10-4
browser, 3-11, 4-10, 5-8, 6-9
Bus Topology, 10-4

C

cable, 10-2
      coaxial, 10-2
cabling, ii
calibration, See Color Calibration

CD-ROM, ii
CentreWare, 7-2
CentreWare Internet Services, 2-12
Client, 10-4
coaxial cable, 10-3, 10-4
Color Calibration, v, vii, 1-2, 2-1, 2-3
Color Calibration Utility, 2-18
Configuration, 2-9
Configuration Report, 9-2, 9-11
Control Panel, 3-3, 4-3, 6-3
Conventions Used in This Guide, iv
CSMA/CA, 10-4
CSMA/CD, 10-2, 10-4

D

DB-9, 10-4
Device Discovery, 10-4
DHCP, 10-5
Direct Connect, 10-5
DNS, 10-5
documentation, vi, vii
Domain Name Service, 10-5

E

Ethernet, iv, 1-3, 7-2, 9-4, 9-6, 9-9,
    10-2, 10-3, 10-5, 10-6, 10-11,
    10-12
EtherTalk, 1-3, 10-6
External Print Port Box (External
    Print Server), 1-3, 1-5, 1-7

F

file server, 10-3, 10-6, 10-9
File Transfer Protocol, 10-6
frame, 10-6
Frame Type, 2-8, 3-2, 3-3, 6-2, 9-8, 10-6
FTP, 10-6
Full Duplex, 10-6

G

Gateway, 6-2, 9-8, 9-10 to 9-12, 10-6
Gateway Address, 4-3, 4-11, 6-2, 6-3, 6-11, 9-8, 10-7

H

help, vii
How to Use this Guide, iii
HTTP, 10-7

I

IBM LAN Server, 9-1
IEEE, 10-2, 10-7, 10-8
Internet Explorer, 2-12 to 2-18, 3-2, 3-5, 3-11, 4-2, 4-5, 4-10, 5-2, 5-3, 5-8, 6-2, 6-5, 6-9, 9-2, 9-4, 9-6, 9-9, 9-10, 10-1
Internet Services, vi, vii, 2-2
Internet Services Navigation, 2-14
IP Address, 3-11, 4-11, 5-8, 6-8, 10-8
IPX, 10-7 to 10-9
    printing, 1-2
ISO, 10-2, 10-7, 10-8

L

LAN, 10-8
LLC, 10-8

Local Area Network, 10-8
LocalTalk, 10-2, 10-4, 10-8
LPD/LPR printing, 1-2, 4-13, 6-2, 6-12, 9-8
LPR, 10-8

M

Macintosh, 5-2, 8-1, 8-7, 8-8, 10-11
Manual Discovery, 10-9
Microsoft Internet Explorer, ii
Microsoft NetBEUI, 9-4, 9-6

N

Navigating in Internet Services, 2-14
NDS, 1-3, 3-2
NDS Context Name, 3-2, 3-9
NDS Tree, 3-2, 3-9
NetBIOS/IP, 1-2, 1-3, 4-1, 4-2, 9-6, 10-9
NetBIOS/NetBEUI, 1-2, 1-3, 4-1, 4-2, 9-4, 9-6, 10-9
Netscape Navigator, ii, 2-2, 3-11, 4-10, 5-8, 6-9
NetWare, 1-2, 1-3, 2-6, 2-8, 3-1, 3-2, 3-5, 3-6, 3-9, 3-11, 3-12, 4-2, 9-1 to 9-3, 10-6, 10-9
NetWare Bindery, 3-2, 3-9
NetWare NDS, 3-2, 3-9
Network Administrator, ii
Network Connectivity, 1-5
Network Environments, Supported, 1-3
Network Installation Software, CentreWare, 2-2
NFS, 10-9
Node, 10-9
NOS, 10-10
Novell documentation, 3-3
NWADMIN32, 3-3

W

WAN, 10-14
Wide Area Network   *See* WAN
Windows 3.X, 1-2, 1-3, 2-18, 3-1, 3-
   2, 8-1, 8-2
Windows 95/98, 8-4
Windows NT 4.0, 8-6

Z

zone, 10-14

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